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In the context of a growing debate over the relationship between education and the economic performance of the United States, this hearing focused on what the federal government, and the Congress in particular, can do to foster improved economic performance. Oral and written testimony was delivered by three witnesses: Henry M. Levin, director, Center for Educational Research, Standard University; John E. Chubb, senior fellow, the Brookings Institution; and Lorraine M. McDonnell, senior political scientist, the RAND Corporation. (DB)

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EDUCATION, U.S. ECONOMIC PERFORMANCE AND THE FEDERAL ROLE

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HEARING BEFORE THE JOINT ECONOMIC COMMITTEE CONGRESS OF THE UNITED STATES ONE HUNDRED FIRST CONGRESS SECOND SESSION

JULY 26, 1990

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(II)

CONTENTS

WITNESSES AND STATEMENTS

THURSDAY, JULY 26, 1990

	Page
Hamilton, Hon. Lee H., chairman of the Joint Economic Committee: Opening statement	1
Levin, Henry M., professor of education and economics and director of the Center for Educational Research, Stanford, University	1
Chubb, John E., senior fellow, the Brookings Institution, Washington, DC	14
McDonnell, Lorraine M., senior political scientist, RAND Corp	32

SUBMISSIONS FOR THE RECORD

THURSDAY, JULY 26, 1990

Chubb, John E.: Prepared statement	18
Levin, Henry M.: Prepared statement	6
McDonnell, Lorraine M.: Prepared statement	36

(III)

EDUCATION, U.S. ECONOMIC PERFORMANCE AND THE FEDERAL ROLE

THURSDAY, JULY 26, 1990

CONGRESS OF THE UNITED STATES,
JOINT ECONOMIC COMMITTEE,
Washington, DC.

The committee met, pursuant to notice, at 10:05 a.m., in room 2226, Rayburn House Office Building, Hon. Lee H. Hamilton (chairman of the committee) presiding.

Present: Representative Hamilton.

Also present: Steve Baldwin, Pat Ruggles, and Chris Frenze, professional staff members.

OPENING STATEMENT OF REPRESENTATIVE HAMILTON, CHAIRMAN

Representative HAMILTON. The Joint Economic Committee will come to order.

This morning we are pleased to welcome you to the hearing on Education, U.S. Economic Performance and the Federal Role.

Over the past year, the issuance of two national commission reports and the President's education summit with the Governors have contributed to this debate about what our 1988 report termed "the education deficit."

In this hearing, we hope to add to the discussion by focusing on what the Federal Government, and the Congress in particular, can do to foster improved educational performance.

Each of you will have a prepared statement, of course. That prepared statement will be entered into the record in full, and we would like to request that you keep your opening comments to about 10 minutes so we can turn quickly to questions.

We are happy to introduce the following distinguished witnesses: Henry M. Levin, director, Center for Educational Research, Stanford University; John E. Chubb, senior fellow, the Brookings Institution; and Lorraine M. McDonnell, senior political scientist, the RAND Corp.

Thank you for joining us.

Mr. Levin, why don't you begin, and we'll just move across the table.

STATEMENT OF HENRY M. LEVIN, PROFESSOR OF EDUCATION AND ECONOMICS AND DIRECTOR OF THE CENTER FOR EDUCATIONAL RESEARCH, STANFORD UNIVERSITY

Mr. LEVIN. Thank you.

(1)

The greatest threat to our economy from the educational perspective is the rising number of at-risk students in America today.

Presently, one-third of our elementary and secondary enrollments are considered to be educationally at risk, and the number and proportion are increasing rapidly because this is a relatively young population, the adult population that bears these children. So they have high birth rates, very high levels of migration from the most impoverished areas, rural areas of some of the poorest countries in the world and the rise in poverty generally and particularly its impact on children in our society.

At-risk students are those who are caught in a mismatch between the kinds of expectations of schools on the one side and the resources that they bring from their homes, families, and communities on the other. What happens educationally is that they begin school behind other children and they get farther and farther behind the longer they are in school.

By sixth grade they are 2 years behind, and at the end of 12th grade they are 4 years behind, if they get that far. That is, they are at the eighth grade level in achievement. But in fact over half of them drop out before completing high school.

A high proportion of them are involved in juvenile crime, drug use, and also teen pregnancies. They are underprepared to participate in the economy, and we should keep in mind that if one-third of our children in elementary and secondary schools are at-risk students, these are the entry level labor force in the future. And as a higher and higher proportion of our students come from these backgrounds, a higher and higher proportion of the entry level labor force will come from these groups.

But, in addition, we are going to face rising costs of public assistance and criminal justice unless we are able to intervene now and make them capable members of the labor force.

I should note that a survey of 19- to 23-year-olds in 1981 who scored in the bottom fifth on a test of basic skills, it was found that 46 percent were in poverty, 40 percent were unemployed, 52 percent had dropped out of high school, 53 percent received public assistance, 59 percent were unwed parents, and 37 percent had been arrested in the previous year.

So this is something like a time bomb in terms of the demography and, frankly, we are not succeeding with these students right now, and that's the basic question. Why is it that we are not succeeding?

Well, our National and State programs assume that these children need remediation, that is, they are behind other children and therefore you cannot put them into the same educational programs as other children, which appears to be valid, but the next step is to identify them as slow learners and then to make sure that that's correct because what we do is we slow them down. We put them into a curriculum where they move much more slowly, where they do work at the most applied and basic levels with no interesting applications, no problem solving and no relation to their own experiences or cultures, and, of course, they get farther and farther behind.

In response to this over the last 5 years, we have been working with a very different approach called an accelerated approach in

which we treat these children as gifted and talented children. Now that may appear to be an irony because we are taking children who are behind other ones and who basically end up without an awful lot of education and without quality outcomes.

But if you think about it, it's a very logical approach. That is gifted and talented students who normally get accelerated and an enriched education are those who score at the top in all of the areas that we test them, and what we do with those students is we then take those kids at the top and we try to figure out how we can provide some kind of enrichment or acceleration to get them even higher than the top, so to speak.

Now if that is so good for kids who are already knocking the tops off the scales, how about kids who come in at the bottom? If we provide enrichment and acceleration for these kids, we can get them into the middle, right into the mainstream and some of these kids will also, of course, make it up into the traditional gifted and talented territory.

And that's what we really need. We need to transform our schools from ones that look at these children basically as damaged merchandise that must be remediated to ones that simply say our job is to get these children into the mainstream of the educational system and our society.

This can't be done through just changing a curriculum, changing some form of instruction or making an organizational change because what we need to do is to transform the schools that these children attend into ones that are dedicated in every single aspect toward their acceleration and enrichment, and that's what we have tried to do.

We have 40 schools now that have been established over the last 3 years, and they are schools in the public sector that have been transformed in terms of their unity of purpose, responsibility, where the responsibility for decisions and for the consequences of those decisions are placed at the school level and then educational strategies that build on the strengths of these children.

The results have been dramatic. In that very short period of time, for example, we have seen changes in performance of these schools. One of the schools that we work with, the Daniel Webster School in San Francisco, had the largest achievement gains in that city this past year among 72 elementary schools in language and the second largest in mathematics with virtually no major additional resources put in other than the resources required for going through this transformation process.

Parental participation has risen dramatically in the school's student attendance and there has been a reduction in grade repetitions, and those are very expensive and they are not very good for children.

The problem is that no more than 1 percent of at-risk children in the Nation are in these kinds of programs, whether in the accelerated school or schools that are trying to do something similar. So the issue is what can be done?

The first is that we really need to provide increased investment in these youngsters. We cannot do the job just by making the transformation of the school without getting additional resources. The job is very, very arduous and many of the students need the

kinds of attention that we cannot provide in the standard format as far as resources are concerned.

Our own estimate, and I should tell you that I'm an economist, my specialty is the economics of education, and our own estimate suggested that in 1988-89 about \$26 billion more was needed for at-risk students in America. When we include what the Federal Government spent and estimates of what the States and local governments were spending on this, only about \$5 billion was provided. So there was a gap of about \$21 billion.

Several studies have found that for every dollar in costs, there are \$6 to \$7 in benefits when spending on these children, and the benefits take the form of higher productivity and increased income and employment, lower cost of crime and lower welfare costs.

I should add that, of course, the Government gets higher revenues from higher income that these investments yield, and in fact studies of just the additional government revenues from the higher investment show that they exceed the costs of the investment by quite a wide margin.

What would we like to see done? First, we would like to see at-risk students be placed as a higher priority on the national agenda. When we talk about the economic threat in education, we seem to talk more vaguely and we seem to talk generally. Most of the reforms have been dedicated toward those students who are in high school and who are going on to college, and many of the students that I'm talking about are way, way behind by the time they get to high school. So talking of higher standards without intervening much earlier doesn't make an awful lot of sense.

The economic threat in itself does not seem to be recognized, and I would argue that it's fairly straightforward because we know what happens to these children in the schools, we know what happens to them educationally, and we know what happens to them when they get into the economy, and there are going to be far larger numbers of them in the future than there are today and than there have been in the past.

We need greater incentives for using some of chapter 1 and other funds for school transformation rather than for mere service delivery, and the point is that we have to make these schools far more efficient. Spending money to get kids farther and farther behind is not a very efficient use of resources, and we need to transform schools so that the resources we're putting in and additional resources can really make a much larger difference.

Finally, we need the ability to combine programs for entire school needs in this transformation rather than isolating programs and trying to account for them independently, migrant education, bilingual, Indian education, chapter 1, these are all found in single schools in America and yet they are administered separately and they are not used to reinforce the overall school program that affects all of these children.

My biggest concern is that there is not much educational leadership in the country now on this issue, and I would certainly say that one item that does not require additional appropriations is just to get Congressmen and Senators to go out to their States and congressional districts and set this out as part of their educational platforms, the notion of accelerating the education of these chil-

dren, the notion of investing in these children with respect to both national productivity as well as some of our other goals.

Finally, let me just say if we want to avoid an at-risk society and economy, we need to focus now on accelerating the education of these students.

Thank you very much.

Representative HAMILTON. Mr. Levin, thank you.

[The prepared statement of Mr. Levin follows:]

PREPARED STATEMENT OF HENRY M. LEVIN

"FAILURE TO EDUCATE AT-RISK STUDENTS AND THE FUTURE
OF THE U.S. ECONOMY"

CRISIS OF AT-RISK STUDENTS

Although there are numerous opportunities for using education to improve economic performance, the most crucial need is to bring the burgeoning population of at-risk students into the educational mainstream. At-risk students are likely to experience educational failure because they suffer a mismatch between the resources that their families are able to provide and the expectations of existing schools. Educational failure translates into an inability to succeed in obtaining productive employment and further training, and these failures translate into low productivity and earnings, low tax revenues, and rising expenditures on public assistance and the criminal justice system.

WHO IS EDUCATIONALLY AT-RISK?

At-risk students are particularly concentrated among families that are in poverty, headed by single parents, non-English speaking, minority, and migrants from the rural areas of Latin America and Asia. About one-third of elementary and secondary enrollments in the U.S. are comprised of at-risk students, and the proportion is rising rapidly because of high birth rates, the surge of immigration in the U.S., and rising child poverty.

At-risk populations are relatively young and more likely to be in the prime child-bearing ages than other populations, accounting for higher birthrates. A large share of the continuing migration to the U.S. consists of families from rural and agricultural backgrounds with little education or familiarity with the English language and a modern economy. Finally, poverty rates have not only risen since 1979, but they have become increasingly concentrated among the most vulnerable members of our society, our children. About one of five children below the age of 18 lives in poverty, and about one out of four preschool children is poor. This proportion has almost doubled in the last two decades. Among black pre-school children, over half live in poverty.

In most of the largest cities of the Nation and in some states like California and Texas, over half of all school-age children are educationally at-risk. By the year 2020 a majority of school-age children across the nation are expected to be at risk of serious educational failure. Since the school populations of today are the entry level labor force tomorrow, we will see a large and increasing portion of our new workers drawn from the growing population of at-risk students.

EDUCATIONAL AND ECONOMIC CONSEQUENCES

At-risk students begin school behind other students and get farther and farther behind the older they get. They are about two years behind grade level in standardized achievement and about four years behind at the end of high school, if they get that far. Over half of them drop out before graduating. Sustained lack of school success breeds high rates of involvement in juvenile crime, drug use, and teenage pregnancies.

These school failures translate into rising numbers of labor force entrants who are neither prepared nor oriented towards conventional employment opportunities. They lack the educational foundations for benefitting from further training and adapting to technological change. Gordon Berlin and Andrew Sum found that among a national sample of 19-23 years olds in 1981 who scored in the bottom fifth on a test of basic skills:

- o 46 percent were in poverty;
- o 40 percent were unemployed;
- o 52 percent had dropped out of high school;
- o 53 percent received public assistance;
- o 59 percent were unwed parents;
- o 37 percent had been arrested in the previous year.

(1) Deterioration of the Labor Force

If we do not intervene quickly and successfully, an inevitable consequence of the rising number of at-risk students will be a serious deterioration in the quality of the labor force. In the past, at-risk persons comprised a relatively small portion of the population and there were substantial agricultural and other menial jobs available. Such workers could be absorbed into seasonal and low-skill jobs or relegated to unemployment without major consequence. But, as their numbers grow and they continue to experience low achievement and high dropout rates, a larger and larger portion of the available labor force will be unprepared for available jobs. Here I refer not only to managerial, professional, and technical jobs, but also the huge and burgeoning numbers of lower-level service jobs that characterize the economy. Clerical workers, cashiers, and salespeople need basic skills in oral and written communication, computation, and reasoning, skills not guaranteed to the educationally disadvantaged. A U. S. government study in 1976 found that while 13 percent of all 17 year olds were classified as functionally illiterate, the percentage of illiterates among

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Hispanics and Blacks was 56 percent and 44 percent respectively.

The U.S. is already facing great difficulties in maintaining a competitive economic stance relative to other industrialized and industrializing countries. As the at-risk population becomes an increasing and even a dominant share of the labor force in some states and regions, their inadequate educational preparation will undermine the competitive position of the industries and states in which they work. Employers will suffer lagging productivity, higher training costs, and competitive disadvantages that will result in lost sales and profits. Federal, state, and local government will suffer a declining tax base and loss of tax revenues.

(2) Rising Costs of Public Services

The economic losses will come at a time of rising costs of public services for populations that are disadvantaged by inadequate education. More and more citizens will need to rely upon public assistance for survival, and increasing numbers of undereducated teens and adults will pursue illegal activities to fill idle time and obtain the income that is not available through legal pursuits. Surely, much of the use and sale of "crack" cocaine and the rise of gangs in the inner cities is a reflection of this phenomenon.

The inability to find regular employment that pays sufficiently to overcome poverty will require greater public subsidies to overcome increases in poverty and to counter drugs, prostitution, theft, and other alternatives to legal employment. These developments will reduce the attractiveness of the U.S. as a place to live while increasing the costs of police services and the criminal justice system as well as public assistance. Pressures will be placed on the middle class to pay higher taxes at the same time that their income is threatened by a flagging economy, creating an additional source of political conflict as besieged taxpayers resist tax increases.

IS NATIONAL EDUCATIONAL POLICY ON THE RIGHT TRACK?

Clearly, we are not on the right track. Present programs including those funded under Chapter I of the Education Consolidation and Improvement Act of 1981 ensure that at-risk students get farther behind the educational mainstream the longer that they are in school. And this problem does not stem from a lack of teacher dedication, a charge that has often been made. Paradoxically, it occurs because compensatory programs are designed to slow-down the instruction of at-risk students by assuming that they are less capable than others. Such students are placed into less demanding instructional settings--either by being pulled-out of their regular classrooms or by adapting the regular classroom to their "needs"--to provide remedial or compensatory educational services. While this approach appears to be both rational and compassionate, it has exactly the opposite consequences.

First, it reduces learning expectations on the parts of both the children and the educators assigned to teach them, and it stigmatizes both groups with a label of inferiority. Second, it slows-down the learning process so that at-risk students get farther and farther behind the mainstream, the longer that they are in school. Third, the approach to remediation is to provide repetitive practice of low-level basic exercises through endless drill and practice. This educational experience is empty and joyless because it fails to incorporate a rich curriculum, student involvement and discourse, interesting applications of concepts, active problem solving, and learning activities that build on the strengths of the students and their backgrounds. Finally, this remedial approach does not draw sufficiently upon parent and community resources, nor does it provide for the participation of school-based educators to influence the programs that they must implement.

An effective approach to educating the disadvantaged must be characterized by high expectations, deadlines by which such children will be performing at grade level range, stimulating instructional programs, planning by the educational staff who will offer the program, and the use of all available resources including the parents of the students. The approach should incorporate a comprehensive set of strategies that mutually reinforce each other in creating an organizational push towards raising the achievement of students to grade level.

ACCELERATED SCHOOLS

Over the last four years, I and my colleagues at Stanford University have developed an approach called the Accelerated School that treats at-risk students as gifted and talented students. Our goal is not to slow down the progress of these children, but to accelerate it by building on their considerable strengths through instructional enrichment. We aim to bring these students into the educational mainstream by the end of elementary school and to sustain their progress in middle schools and high schools. The schools have a unity of purpose around their focus on acceleration, and both the staff and parents at the school site have responsibility both for decisions and for the consequences of those decisions on student progress. School programs are chosen directly by school staff to build on student strengths and to be rich in challenging applications and problem-solving situations. Heavy emphasis is also placed on creating a positive emotional climate for all students. Instead of following a piecemeal approach to educational reform, we are emphasizing the comprehensive transformation of schools into fully accelerated learning institutions.

Since 1987 some 40 pilot accelerated elementary schools have been established, most of them in the 1989-90 school year. In the 1990-91 school year we are extending these efforts to middle

schools. It is expected to take six years to fully transform a school into an accelerated entity, but early evaluations have shown dramatic results for student achievement, parent participation, and school climate. For example:

- o The Daniel Webster School in San Francisco had the largest increase in mathematics achievement and the second largest in language achievement among the 72 elementary schools in that city in 1989-90.

- o The Hoover School in Redwood City, California was able to improve its mathematics achievement from the 10th percentile to the 27th percentile in the second year of its participation.

- o The Holly Brook School in Houston was able to raise student achievement in all subjects by substantial amounts in 1989-90, its first year.

- o The Fairbanks School in Springfield, Missouri showed the most dramatic improvement of all elementary schools in that city.

In general, accelerated schools have reported spectacular increases in parental participation (e.g. 95 percent of parents attending parent conferences with teachers, up from 30 percent some 3 years before), reductions in grade repetitions, active teacher and parent involvement in school decisions, and improvements in attendance. These results are found in schools in which the vast majority of students are at-risk and in which there have been only nominal increases in expenditures--averaging about 1-2 percent of the budget. Moreover, the schools are in relatively low expenditure school districts and are not spending more for each student than comparable schools in those districts.

Full implementation of our goal of mainstream performance for at-risk students will require some increase in educational expenditures in conjunction with transforming schools to make that expenditure educationally efficient through the use of accelerated school techniques. Our long term strategy is to create the conditions for ensuring that present and additional educational investments for at-risk students are used to accelerate the progress of those students rather than to slow down their progress.

NEEDED INVESTMENT AND ITS PAYOFFS

My own research suggests that to make the educational progress that is necessary to avoid the economic consequences of the growing at-risk student population, we would have needed about an additional \$2,000 a year per at-risk student in 1988-89 for a total of about \$26 billion for the estimated 13 million such students. But, the combination of both funds from Chapter I of ECIA, the major federal funding for at-risk students, and the various state support programs for such children did not exceed \$5 billion a year of which Chapter I accounted for about \$4 billion. The result is that an additional \$21 billion of funding

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would have been needed, or a fourfold expansion in additional spending for at risk students. The necessary increase would have accounted for only about a 10 percent increase in overall elementary and secondary educational funding for the Nation.

Such funds would need to come from all levels of government. The federal government should provide the bulk of the additional funding for several reasons. First, the failure to address the educational needs of at-risk students will have national repercussions for the nation's economy. Second, equality of opportunity has been a foremost commitment at the federal level.

Third, the federal government will receive most of the additional tax revenues generated by the income created by educational investments. About 60 percent of all public revenues are collected at the federal level, but only about 6 percent of the cost of elementary and secondary education is paid for by the federal government. In contrast, over 90 percent of the cost of education is paid by state and local governments, even though they receive only 40 percent of the tax revenues generated by educational investments. If the Federal government were to have paid 60 percent of the needed \$26 billion in additional spending, in 1988-89 it would have allocated about \$15.6 instead of the approximately \$4 billion that it allotted to Chapter I of ECIA.

Much of this spending could be reallocated from the billions of dollars in waste that characterizes the military and other government programs characterized by fraud and incompetence as well as the demise of Cold War. For example, the federal "bail-out" of savings and loans has been estimated to cost over \$500 billion over the next decade, and recent losses from fraud and political manipulation at the Department of Housing and Urban Development account for at least several billion dollars. Arguments that budgetary deficits and spending stringencies make it impossible to increase educational federal funding for at-risk students are simply statements of political and value priorities. Such assertions tend to pale alongside the possibilities for reallocations from weapons systems that don't work, taxpayer insured savings and loan fraud, defaults from poorly monitored student loan programs, and bloated health care programs and the importance of tax increases for funding human resource investments that will pay off in the future.

Further, my review of investments in at-risk students suggests that for every dollar of expenditure spent on improving the educational outcomes of at-risk students, the economy will generate an additional \$6 in economic output from their higher productivity and participation. Even these estimates do not take full account of lower public expenditures on public assistance, the criminal justice system, health care, and educational needs of the children of the present at-risk population. Present research at Stanford University is undertaking the value of these

social benefits. And, in every study on this subject it was found that the increase in tax revenues from higher income and productivity would more than repay the additional spending.

While the Accelerated Schools program and a few other programs on a national level are making progress, it is painfully slow. Probably fewer than 1 percent of at-risk students are in such programs. At the moment much of the funding for school transformation must be raised from private sources because of stringencies on public funding for such purposes. The schools that educate at-risk students are typically found in low expenditure areas. They need virtually all of their finances just to staff classrooms and other instructional needs and cannot spare resources for a serious investment in transforming themselves into accelerated schools. This transformation requires the ability of schools to redefine their directions, to undertake retraining for accelerated roles, to create a system of inquiry and use of information that will make for informed decisions, and to establish new approaches for academic enrichment and parental participation. Though school transformation towards acceleration will require an initial investment in released time for teachers for planning and staff development, it will save considerable resources through more efficient use of funds in the future.

As long as schools continue to follow the present remedial model rather than acceleration, resources will be used to provide instruction in a direction that is not promising. Without an explicit priority on using resources to create accelerated education for at-risk students, schools will continue to focus on an approach that ensures that at-risk students will get farther and farther behind the educational mainstream.

THE FEDERAL ROLE

Federal leadership is badly needed to advance the movement to accelerate the learning of at-risk students on a national basis and to avoid the economic repercussions of their rising numbers. More specifically, the Congress and Executive Branch must recognize the burgeoning crisis of educationally at-risk students and its consequences for the U.S. economy through giving this issue a high sense of urgency. Specifically federal leadership should:

- 1- Seek additional federal resources for the education of at-risk students as well as prod other levels of government to recognize their own responsibilities in this area. This suggests an additional investment by the Federal government of about \$12-13 billion per year at present.
- 2- Place a high priority on the comprehensive transformation of schools serving at-risk students through acceleration and enrichment rather than spending on piece-meal changes which

have little effect and remediation approaches which serve to ensure that at-risk students fall farther behind.

These steps will require both legislative actions and appropriations. Legislation will need to focus on establishing incentives and local authority to use greater portions of Chapter I and other federal funds for transforming schools into accelerated entities. They will also require giving schools the authority to combine funds from the diverse programs serving the various groups of at-risk students in order to create schools in which all students are made academically able. These responses will require Congressional leadership in setting out a vision of education that will more fully serve at-risk students and the future economy of the Nation by accelerating both.

Representative HAMILTON. Mr. Chubb, please proceed.

**STATEMENT OF JOHN E. CHUBB, SENIOR FELLOW, THE
BROOKINGS INSTITUTION, WASHINGTON, DC**

Mr. CHUBB. Thank you.

Let me begin by saying that I agree with virtually everything that Mr. Levin has presented here. My only point of disagreement is that I think the problem is substantially broader than the one he defines—and I don't know that he would disagree with me on that either.

The problem of at-risk kids is certainly a very serious one, but I don't think we can take comfort in the achievement of the kids in the middle, or perhaps even the kids at the very top, when we consider low and declining test scores, for high school students, middle school students, and students across the board. Falling test scores are not due only to increased test taking by at-risk kids.

The educational slide, if you will, the noncompetitiveness of our educational system and of our educational product, is really not just confined to the bottom of the educational ladder. It's much more widespread.

I would also stress another element of the problem, and I think this has to be taken very seriously, dead seriously, by all reformers, and that is this simple fact: 1990 is not the beginning of education reform, the education summit wasn't the beginning of education reform, and "A Nation at Risk" wasn't the beginning of education reform. The United States has been trying to transform its schools for a long time, using more resources, implementing more programs and imposing higher standards. An awful lot has been done, yet there is precious little to show for it—except for isolated examples such as the ones that Mr. Levin was pointing to.

Given this record, if we are going to make progress in school improvement, we must address two questions. One is what do successful schools look like. But the other, equally important question is why our efforts to create more successful schools in the past have generally failed. In other words, we face a two-part problem. We have to understand what good schools look like, and we have to understand how we produce them.

Terry M. Moe, a Stanford professor, and I have just completed a study of American high schools which addresses both of those problems. It's a study of 500 schools, 22,000 teachers, principals, and students from all over the country. I would like to summarize briefly three key findings in that study. They point to the need for a rather different direction in school reform than that which it has traditionally been followed.

We began by trying to understand what promotes achievement gains in schools—that is, not what promotes high levels of achievement necessarily—reaching the 95th percentile, for example—but rather for example what promotes improvement, even if those gains are registered by children moving from the bottom quartile to the middle of the distribution. In other words, we were interested in schools that are effective with various kinds of kids.

We found that schools indeed make an enormous difference for student achievement. If you go to a mediocre school as opposed to

an excellent school, just over the high school years, you can expect to achieve about a year and a half less in achievement gains over the high school years. So schools make a big difference.

The problem for reformers is that the characteristics of effective schools are not really captured in the kinds of school qualities that reformers have focused on. For example, we didn't find any differences in teachers' salaries or spending per pupil or class sizes or graduation requirements distinguishing the successful from the unsuccessful schools.

Rather we found that the differences have a lot to do with some of the things that Mr. Levin was alluding to. The differences are more or less matters of school organization. We found, for example, that the successful schools had an unusually clear sense of purpose. All of the people in the school were pulling in the same direction. The kids shared a common motivation, the teachers believed in the same thing and they were all pulling together. Magnet schools, for example, try to utilize this concept.

They also were very strongly led. They had principals who were interested in being leaders and not mere middle managers. They invested their teachers with a sense of trust and professionalism. Teachers had a lot more influence in these schools; they participated in policymaking and they worked together as teams.

When you put all this together—a clear sense of purpose, leadership, and professionalism—what you found was an extraordinary form of support for academic work. Children in these schools were more than twice as likely to be involved in an academic program of study and to stick with that program through high school.

As Mr. Levin was stressing, if kids are going to succeed, they have to be expected to succeed, and they have to be supported in the most rigorous kinds of academic endeavors. But to do that you can't simply require that kids take more courses. You have to provide that complete supportive environment. In other words, the whole school has to be involved. Successful schools do this.

The second thing I want to stress, however, is this. We wanted to understand where successful schools develop and the conditions that are necessary for creating them. We found, on the positive side, that these kinds of schools can exist and do exist for all kinds of students from all kinds of families, although they are obviously easier to create for kids who have various advantages.

But notwithstanding that difference, the key determinant of whether effective schools develop was the degree of autonomy or freedom that schools have from external control by superintendents, bureaucratic rules and regulations, school boards, legislatures, and unions.

In other words, the more discretion and freedom, the more leeway, principals have in deciding who is going to teach or not teach in the school, who is going to play on the team, if you will; what the curriculum is going to be, and what the school's focus is going to be—the more freedom that exists within the school to make these determinations—the more likely the people in the school are to be pulling together as a team of professionals.

It should hardly be surprising that this is the case. We all know that bureaucracy is the antithesis of leadership and that bureaucracy is the antithesis of professionalism. If you want to have a profes-

sional, teamlike, focused organization, it's very difficult to impose one from the top down.

There, then, are two of the key findings of the study.

But there is one last finding that I want to stress, and here is where the reform problem comes up. We found that it is extraordinarily difficult within the current system of public education for schools to be given the degree of autonomy they need. In fact, we found that except under unusual circumstances, the schools that were granted sufficient autonomy within the public sector tended to be schools that were sitting in small, suburban, homogeneous school systems with relatively few problems.

In those cases there was very little political conflict, very little value conflict, and very little need for those in the political process to use bureaucracy to get the losers in the political process to do what they wanted.

But in urban schools we found precisely the opposite. In urban schools—even urban schools that didn't have the problem kids, even urban schools that didn't have difficult parents—schools were essentially trapped in a vicious circle. In this circle, poor performance led to demands on the school board and other politicians to do something, which led to various kinds of programs—all with the best intentions—but with all kinds of rules and regulations which constrain what the principals and teachers are able to do to meet the needs of the very different kinds of kids that they face—kids that are often very different from the ones that the school board understands.

Because urban public schools are caught in this vicious circle, efforts to improve the schools often end up making them worse by bureaucratizing them.

We did, however, find a way out of this dilemma. In looking at private schools we found that regardless of where they were located, regardless of what clientele they were serving, and regardless of how difficult the parents were and how difficult the kids were, those schools were essentially provided with a great deal of autonomy to develop effective school organizations and to do a better job.

The reason is essentially because the parents are given the freedom to choose among schools and the schools are competing for parental support. In that kind of an environment all of the focus is on the client. It's not on the politicians, it's not the administrators, it's on the clients. And when the focus is on the clients, it compels decentralization, it cuts through bureaucracy, it increases the responsiveness of the schools to the parent, and it creates an environment in which these kinds of effective schools can flourish.

As a result, what we recommend is that government at all levels try to make use of systems of public school choice to encourage the development of special schools and to encourage the development of more accountability for performance within the schools. There are many, many ways that this can be done. We make a proposal in the prepared statement that we've submitted.

But my point for the Federal role is simply this. If choice is going to work in this country, and there are many States that are now moving in this direction, the Federal Government has I think two things that it can do to make public school choice work better.

One is to guarantee that choice systems are equitable. This is the traditional Federal role—to guarantee that students who have special needs have those needs met. The way to do that in a choice system is to guarantee that when parents make a choice of schools in these systems they do not lose the Federal support that they are entitled to for their special needs. In other words, Federal money needs to be able to move with students.

The second thing that I think the Federal Government needs to do is to move away from its conception of school improvement as depending on the implementation of special programs.

The idea of choice, and in fact the idea of what I would consider most of the more promising approaches to school reform, is to try to transform the entire school, to try to transform the entire school environment so that the child spends 6 hours a day in an excellent school. For better or for worse, Federal programs up to this point have basically been providing special services to children who are stuck in bad schools.

I think that the Federal Government ought to move beyond the special program focus and think how it can facilitate the efforts that are taking place at the State and local levels to get more kids into excellent schools.

Thank you.

Representative HAMILTON. Thank you, Mr. Chubb.

[The prepared statement of Mr. Chubb follows:]

PREPARED STATEMENT OF JOHN E. CHUBB

Toward a New System of Public Education

John E. Chubb¹ and Terry M. Moe²

For America's public schools, the last decade has been the worst of times and the best of times. Never before have the public schools been subjected to such savage criticism for failing to meet the nation's educational needs--yet never before have governments been so aggressively dedicated to studying the schools' problems and finding the resources for solving them.

The signs of poor performance were there for all to see during the 1970s. Test scores headed downward year after year. Large numbers of teenagers continued to drop out of school. Drugs and violence poisoned the learning environment. In math and science, two areas crucial to the nation's success in the world economy, American students fell far behind their counterparts in virtually every other industrialized country. Something was clearly wrong.

During the 1980s, a growing sense of crisis fueled a powerful movement for educational change, and the nation's political institutions responded with aggressive reforms. State after state increased spending on schools, imposed tougher requirements, introduced more rigorous testing, and strengthened teacher certification and training. And, as the decade came to an end, creative experiments of various forms--from school-based management to magnet schools--were being launched around the nation.

We think these reforms are destined to fail. In a recently published nationwide study, Politics, Markets, and America's Schools (Brookings, 1990), we find that current reforms simply do not get to the root of the problem. After analyzing a sample of some 500 schools and 22,000 students, teachers, and principals--the most comprehensive survey of American high schools ever assembled--we find that the fundamental causes of poor academic performance are not to be found in the schools, but rather in the institutions by which the schools have traditionally been governed. Reformers fail by automatically relying on these institutions to solve the problem--when the institutions are the problem.

The key to better schools, therefore, is institutional reform. What we propose is a new system of public education that eliminates most political and bureaucratic control over the schools and relies instead on indirect control

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through markets and parental choice. These new institutions naturally function to promote and nurture the kinds of effective schools that reformers have wanted all along. Our purpose here is to summarize the evidence that leads us to this conclusion, and to highlight how a new system of public education might work.

Schools and Institutions

Three basic questions lie at the heart of our analysis. What is the relationship between school organization and student achievement? What are the conditions that promote or inhibit desirable forms of organization? And how are these conditions affected by their institutional settings?

Our perspective on school organization and student achievement is in agreement with the most basic claims and findings of the "effective schools" literature, which served as the analytical base of the education reform movement throughout the 1980s. We believe, as most others do, that how much students learn is not determined simply by their aptitude or family background--although, as we show, these are certainly influential--but also by how effectively schools are organized. By our own estimates, the typical high school student tends to learn considerably more, comparable to at least an extra year's worth of study, when he or she attends a high school that is effectively organized rather than one that is not.

Generally speaking, effective schools--be they public or private--have the kinds of organizational characteristics that the mainstream literature would lead one to expect: strong leadership, clear and ambitious goals, strong academic programs, teacher professionalism, shared influence, and staff harmony, among other things. These are best understood as integral parts of a coherent syndrome of organization. When this syndrome is viewed as a functioning whole, moreover, it seems to capture the essential features of what people normally mean by a team--principals and teachers working together, cooperatively and informally, in pursuit of a common mission.

How do these kinds of schools develop and take root? Here again, our own perspective dovetails with a central theme of educational analysis and criticism: the dysfunctions of bureaucracy, the value of autonomy, and the inherent tension between the two in American public education. Bureaucracy vitiates the most basic requirements of effective organization. It imposes goals, structures, and requirements that tell principals and teachers what to do and how to do it--denying them not only the discretion they need to exercise their expertise and professional judgment but also the flexibility they need to develop and operate as teams. The key to effective education rests with unleashing the productive potential already present in the schools and their personnel. It rests with granting them the autonomy to do what they do best. As our study of American

high schools documents, the freer schools are from external control the more likely they are to have effective organizations.

Only at this late stage of the game do we begin to part company with the mainstream. While most observers can agree that the public schools have become too bureaucratic and would benefit from substantial grants of autonomy, it is also the standard view that this transformation can be achieved within the prevailing framework of democratic control. The implicit assumption is that, although political institutions have acted in the past to bureaucratize, they can now be counted upon to reverse course, grant the schools autonomy, and support and nurture this new population of autonomous schools. Such an assumption, however, is not based on a systematic understanding of how these institutions operate and what their consequences are for schools.

Political Institutions

Democratic governance of the schools is built around the imposition of higher-order values through public authority. As long as that authority exists and is available for use, public officials will come under intense pressure from social groups of all political stripes to use it. And when they do use it, they cannot blithely assume that their favored policies will be faithfully implemented by the heterogeneous population of principals and teachers below—whose own values and professional views may be quite different from those being imposed. Public officials have little choice but to rely on formal rules and regulations that tell these people what to do and hold them accountable for doing it.

These pressures for bureaucracy are so substantial in themselves that real school autonomy has little chance to take root throughout the system. But they are not the only pressures for bureaucracy. They are compounded by the political uncertainty inherent in all democratic politics: those who exercise public authority know that other actors with different interests may gain authority in the future and subvert the policies they worked so hard to put in place. This knowledge gives them additional incentives to embed their policies in protective bureaucratic arrangements—arrangements that reduce the discretion of schools and formally insulate them from the dangers of politics.

These pressures, arising from the basic properties of democratic control, are compounded yet again by another special feature of the public sector. Its institutions provide a regulated, politically sensitive setting conducive to the power of unions, and unions protect the interests of their members through formal constraints on the governance and operation of schools—constraints that strike directly at the schools' capacity to build well-functioning teams based on informal cooperation.

The major participants in democratic governance—including the unions—complain that the schools are too bureaucratic. And they mean what they

say. But they are the ones who bureaucratized the schools in the past, and they will continue to do so, even as they tout the great advantages of autonomy and professionalism. The incentives to bureaucratize are built into the system.

Market Institutions

This kind of behavior is not something that Americans simply have to accept, like death and taxes. People who make decisions about education would behave differently if their institutions were different. The most relevant and telling comparison is to markets, since it is through democratic control and markets that American society makes most of its choices on matters of public importance, including education. Public schools are subject to direct control through politics. But not all schools are controlled in this way. Private schools—representing about a fourth of all schools—are subject to indirect control through markets.

What difference does it make? Our analysis suggests that the difference is considerable and that it arises from the most fundamental properties that distinguish the two systems. A market system is not built to enable the imposition of higher-order values on the schools, nor is it driven by a democratic struggle to exercise public authority. Instead, the authority to make educational choices is radically decentralized to those most immediately involved. Schools compete for the support of parents and students, and parents and students are free to choose among schools. The system is built on decentralization, competition, and choice.

Although schools operating under a market system are free to organize any way they want, bureaucratization tends to be an unattractive way to go. Part of the reason is that virtually everything about good education—from the knowledge and talents necessary to produce it, to what it looks like when it is produced—defies formal measurement through the standardized categories of bureaucracy.

The more fundamental point, however, is that bureaucratic control and its clumsy efforts to measure the unmeasurable are simply unnecessary for schools whose primary concern is to please their clients. To do this, they need to perform as effectively as possible, which leads them, given the bottom-heavy technology of education, to favor decentralized forms of organization that take full advantage of strong leadership, teacher professionalism, discretionary judgment, informal cooperation, and teams. They also need to ensure that they provide the kinds of services parents and students want, and that they have the capacity to cater and adjust to their clients' specialized needs and interests, which this same syndrome of effective organization allows them to do exceedingly well.

Schools that operate in an environment of competition and choice thus have strong incentives to move toward the kinds of "effective-school" organizations that academics and reformers would like to impose on the public schools. Of course,

not all schools in the market will respond equally well to these incentives. But those that falter will find it more difficult to attract support, and they will tend to be weeded out in favor of schools that are better organized. This process of natural selection complements the incentives of the marketplace in propelling and supporting a population of autonomous, effectively organized schools.

Institutional Consequences

No institutional system can be expected to work perfectly under real-world conditions. Just as democratic institutions cannot offer perfect representation or perfect implementation of public policy, so markets cannot offer perfect competition or perfect choice. But these imperfections, which are invariably the favorite targets of each system's critics, tend to divert attention from what is most crucial to an understanding of schools: as institutional systems, democratic control and market control are strikingly different in their most fundamental properties. As a result, they structure individual and social choices about education very differently, and they have very different consequences for the organization and performance of schools. Each system puts its own indelible stamp on the schools that emerge and operate within it.

What the analysis in our book suggests, in the most practical terms, is that American society offers two basic paths to the emergence of effective schools. The first is through markets, which scarcely operate in the public sector, but which act on private schools to discourage bureaucracy and promote desirable forms of organization through the natural dynamics of competition and choice. The second is through "special circumstances"--homogeneous, problem-free, environments--which, in minimizing the three types of political pressures just discussed, prompt democratic governing institutions to impose less bureaucracy than they otherwise would. Private schools therefore tend to be effectively organized because of the way their system naturally works. When public schools happen to be effectively organized, it is in spite of their system--they are the lucky ones with peculiarly nice environments.

As we show in our book, the power of these institutional forces is graphically reflected in our sample of American high schools. Having cast our net widely to allow for a full range of noninstitutional factors that might reasonably be suspected of influencing school autonomy, we found that virtually all of them fall by the wayside. The extent to which a school is granted the autonomy it needs to develop a more effective organization is overwhelmingly determined by its sectoral location and the niceness of its institutional environment.

Viewed as a whole, then, our effort to take institutions into account builds systematically on mainstream ideas and findings but, in the end, puts a very different slant on things. We agree that effective organization is a major determinant of student achievement. We also agree that schools perform better

the more autonomous they are and the less encumbered they are by bureaucracy. But we do not agree that this knowledge about the proximate causes of effective performance can be used to engineer better schools through democratic control. Reformers are right about where they want to go, but their institutions cannot get them there.

The way to get schools with effective organizations is not to insist that democratic institutions should do what they are incapable of doing. Nor is it to assume that the better public schools, the lucky ones with nice environments, can serve as organizational models for the rest. Their luck is not transferable. The way to get effective schools is to recognize that the problem of ineffective performance is really a deep-seated institutional problem that arises from the most fundamental properties of democratic control.

The most sensible approach to genuine education reform is therefore to move toward a true institutional solution--a different set of institutional arrangements that actively promotes and nurtures the kinds of schools people want. The market alternative then becomes particularly attractive, for it provides a setting in which these organizations take root and flourish. That is where "choice" comes in.

Educational Choice

It is fashionable these days to say that choice is "not a panacea." Taken literally, that is obviously true. There are no panaceas in social policy. But the message this aphorism really means to get across is that choice is just one of many reforms with something to contribute. School-based management is another. So are teacher empowerment and professionalism, better training programs, stricter accountability, and bigger budgets. These and other types of reforms all bolster school effectiveness in their own distinctive ways--so the reasoning goes--and the best, most aggressive, most comprehensive approach to transforming the public school system is therefore one that wisely combines them into a multifaceted reformist package.

Without being too literal about it, we think reformers would do well to entertain the notion that choice is a panacea. Of all the sundry education reforms that attract attention, only choice has the capacity to address the basic institutional problem plaguing America's schools. The other reforms are all system-preserving. The schools remain subordinates in the structure of public authority--and they remain bureaucratic.

In principle, choice offers a clear, sharp break from the institutional past. In practice, however, it has been forced into the same mold with all the other reforms. It has been embraced half-heartedly and in bits and pieces--for example, through magnet schools and limited open enrollment plans. It has served as a means of granting parents and students a few additional options or of giving

schools modest incentives to compete. These are popular moves that can be accomplished without changing the existing system in any fundamental way. But by treating choice like other system-preserving reforms that presumably make democratic control work better, reformers completely miss what choice is all about.

Choice is not like the other reforms and should not be combined with them. Choice is a self-contained reform with its own rationale and justification. It has the capacity all by itself to bring about the kind of transformation that reformers have been seeking to engineer for years in myriad other ways. Indeed, if choice is to work to greatest advantage, it must be adopted without these other reforms, since they are predicated on democratic control and are implemented by bureaucratic means. The whole point of a thoroughgoing system of choice is to free the schools from these disabling constraints by sweeping away the old institutions and replacing them with new ones. Taken seriously, choice is not a system-preserving reform. It is a revolutionary reform that introduces a new system of public education.

A Proposal for Real Reform

The following outline describes a choice system that we think is equipped to do the job. Offering our own proposal allows us to illustrate in some detail what a full-blown choice system might look like, as well as to note some of the policy decisions that must be made in building one. More important, it allows us to suggest what our institutional theory of schools actually entails for education reform.

Our guiding principle in the design of a choice system is this: public authority must be put to use in creating a system that is almost entirely beyond the reach of public authority. Because states have primary responsibility for American public education, we think the best way to achieve significant, enduring reform is for states to take the initiative in withdrawing authority from existing institutions and vesting it directly in the schools, parents, and students. This restructuring cannot be construed as an exercise in delegation. As long as authority remains "available" at higher levels within state government, it will eventually be used to control the schools. As far as possible, all higher-level authority must be eliminated.

What we propose, more specifically, is that state leaders create a new system of public education with the following properties.

The Supply of Schools

The state will be responsible for setting criteria that define what constitutes a "public school" under the new system. These criteria should be minimal roughly corresponding to the criteria many states now use in accrediting private schools--graduation requirements, health and safety requirements, and teacher certification requirements. Any group or organization that applies to the state and meets these minimal criteria must then be chartered as a public school and granted the right to accept students and receive public money.

Existing private schools will be among those eligible to participate. Their participation should be encouraged, because they constitute a ready supply of often-effective schools. Our own preference would be to include religious schools too, as long as their sectarian functions can be kept clearly separate from their education functions. Any private schools that do participate will thereby become public schools, as such schools are defined under the new system.

School districts can continue running their present schools, assuming those schools meet state criteria. But districts will have authority over only their own schools and not over any of the others that may be chartered by the state.

Funding

The state will set up a Choice Office in each district, which, among other things, will maintain a record of all school-age children and the level of funding--the "scholarship" amounts--associated with each child. This office will directly compensate schools based on the specific children they enroll. Public money will flow from funding sources (federal, state, and district governments) to the Choice Office and then to schools. At no point will it go to parents or students.

The state must pay to support its own Choice Office in each district. Districts may retain as much of their current governing apparatus as they wish--superintendents, school boards, central offices, and all their staff. But they have to pay for them entirely out of the revenue they derive from the scholarships of those children who voluntarily choose to attend district-run schools. Aside from the governance of these schools, which no one need attend, districts will be little more than taxing jurisdictions that allow citizens to make a collective determination about how large their children's scholarships will be.

As it does now, the state will have the right to specify how much, or by what formula, each district must contribute for each child. Our preference is for an equalization approach that requires wealthier districts to contribute more per child than poor districts do and that guarantees an adequate financial foundation to students in all districts. The state's contribution can then be calibrated to bring total spending per child up to whatever dollar amount seems desirable;

under an equalization scheme, that would mean a larger state contribution in poor districts than in wealthy ones.

While parents and students should be given as much flexibility as possible, we think it is unwise to allow them to supplement their scholarship amounts with personal funds. Such "add-ons" threaten to produce too many disparities and inequalities within the public system, and many citizens would regard them as unfair and burdensome.

Complete equalization, on the otherhand, strikes us as too stifling and restrictive. A reasonable trade-off is to allow collective add-ons, much as the current system does. The citizens of each district can be given the freedom to decide whether they want to spend more per child than the state requires them to spend. They can then determine how important education is to them and how much they are willing to tax themselves for it. As a result, children from different districts may have different-sized scholarships.

Scholarships may also vary within any given district, and we strongly think that they should. Some students have very special educational needs--arising from economic deprivation, physical handicaps, language difficulties, emotional problems, and other disadvantages--that can be met effectively only through costly specialized programs. State and federal programs already appropriate public money to address these problems. Our suggestion is that these funds should take the form of add-ons to student scholarships. At-risk students should be empowered with bigger scholarships than the others, making them attractive clients to all schools--and stimulating the emergence of new specialty schools.

Choice Among Schools

Each student will be free to attend any public school in the state, regardless of district, with the student's scholarship--consisting of federal, state, and local contributions--flowing to the school of choice. In practice most students will probably choose schools in reasonable proximity to their homes. But districts will have no claim on their own residents.

To the extent that tax revenues allow, every effort will be made to provide transportation for students who need it. This provision is important to help open up as many alternatives as possible to all students, especially the poor and those in rural areas.

To assist parents and students in choosing among schools, the state will provide a Parent Information Center within each local Choice Office. This Center will collect comprehensive information on each school in the district, and its parent liaisons will meet personally with parents in helping them judge which schools best meet their children's needs. The emphasis here will be on personal contact and involvement. Parents will be required to visit the center at least

once, and encouraged to do so often. Meetings will be arranged at all schools so that parents can see firsthand what their choices are.

The Parent Information Center will handle the applications process in a simple fashion. Once parents and students decide which schools they prefer, they will fill out applications to each, with parent liaisons available to give advice and assistance and to fill out the applications themselves (if necessary). All applications will be submitted to the Center, which in turn will send them out to the schools.

Schools will make their own admissions decisions, subject only to nondiscrimination requirements. This step is absolutely crucial. Schools must be able to define their own missions and build their own programs in their own ways, and they cannot do that if their student population is thrust on them by outsiders. They must be free to admit as many or as few students as they want, based on whatever criteria they think relevant--intelligence, interest, motivation, behavior, special needs--and they must be free to exercise their own, informal judgements about individual applicants.

Schools will set their own "tuitions." They may choose to do so explicitly, say, by publicly announcing the minimum scholarship they are willing to accept. They may also do it implicitly by allowing anyone to apply for admission and simply making selections, knowing in advance what each applicant's scholarship amount is. In either case, schools are free to admit students with different-sized scholarships, and they are free to keep the entire scholarship that accompanies each student they have admitted. This gives all schools incentives to attract students with special needs, since these children will have the largest scholarships. It also gives schools incentives to attract students from districts with high base-level scholarships. But no school need restrict itself to students with special needs, nor to students from a single district.

The applications process must take place within a framework that guarantees each student a school, as well as a fair shot at getting into the schools he or she most wants. The framework, however, should impose only the most minimal restrictions on the schools. We suggest something like the following. The Parent Information Center will be responsible for seeing that parents and students are informed, that they have visited the schools that interest them, and that all applications are submitted by a given date. Schools will then be required to make their admissions decisions within a set time, and students who are accepted into one or more schools will be required to select one as their final choice. Students who are not accepted anywhere, as well as schools that have yet to attract as many students as they want, will participate in a second round of applications, which will work the same way.

After this second round, some students may remain without schools. At this point, parent liaisons will take informal action to try to match up these students with appropriate schools. If any students still remain, a special safety-net procedure--a lottery, for example--will be invoked to ensure that each is assigned to a specific school.

As long as they are not "arbitrary and capricious," schools must also be free to expel students or deny them readmission when, based on their own experience and standards, they believe the situation warrants it. This authority is essential if schools are to define and control their own organizations, and it gives students a strong incentive to live up to their side of the educational "contract."

Governance and Organization

Each school must be granted sole authority to determine its own governing structure. A school may be run entirely by teachers or even a union. It may vest all power in a principal. It may be built around committees that guarantee representation to the principal, teachers, parents, students, and members of the community. Or it may do something completely different. The state must refrain from imposing any structures or rules that specify how authority is to be exercised within individual schools. This includes the district-run schools: the state must not impose any governing apparatus on them either. These schools, however, are subordinate units within district government--they are already embedded in a larger organization--and it is the district authorities, not the schools, that have the legal right to determine how they will be governed.

More generally, the state will do nothing to tell the schools how they must be internally organized to do their work. The state will not set requirements for career ladders, advisory committees, textbook selection, in-service training, preparation time, homework, or anything else. Each school will be organized and operated as it sees fit.

Statewide tenure laws will be eliminated, allowing each school to decide for itself whether or not to adopt a tenure policy and what the specifics of that policy will be. This change is essential if schools are to have the flexibility they need in building a well-functioning team. Some schools may not offer tenure at all, relying on pay and working conditions to attract the kinds of teachers they want, while others may offer tenure as a supplementary means of compensating and retaining their best teachers. Teachers, meantime, may demand tenure in their negotiations (individual or collective) with schools--and, as in private colleges and universities, the best teachers are well positioned to get it, since they can take their valued services elsewhere. School districts may continue to offer districtwide tenure, along with transfer rights and seniority preference and whatever other personnel policies they have adopted in the past. But these policies apply only to district-run schools and the teachers who work in them.

Teachers will continue to have a right to join unions and engage in collective bargaining, but the legally prescribed bargaining unit will be the individual school or, as in the case of the district government, the larger organization that runs the school. If teachers in a given school want to join a union or, having done so, want to exact financial or structural concessions, that is up to them. But they

cannot commit other teachers and other schools, unless they are in other district-run schools, to the same things, and they must suffer the consequences if their victories put them at a competitive disadvantage in supplying quality education.

The state will continue to certify teachers, but requirements will be minimal--corresponding to those that many states have historically applied to private schools. In our view, individuals should be certified to teach if they have a bachelor's degree and if their personal history reveals no obvious problems. Whether they are truly good teachers will be determined in practice, as schools determine whom to hire, observe their own teachers in action over an extended period of time, and make decisions about merit, promotion, and dismissal. The schools may, as a matter of strategy, choose to pay attention to certain formal indicators of past or future performance, among them: a master's degree, completion of a voluntary teacher certification program at an education school, or voluntary certification by a national board. Some schools may choose to require one or more of these, or perhaps to reward them in various ways. But that is up to the schools, which will be able to look anywhere for good teachers in a now much larger and more dynamic market.

The state will hold the schools accountable for meeting procedural requirements. It will ensure that schools continue to meet the criteria set out in their charters, that they adhere to nondiscrimination laws in admissions and other matters, and that they collect and make available to the public, through the Parent Information Center, information on their mission, their staff and course offerings, standardized test scores (which we would make optional), parent and student satisfaction, staff opinions, and anything else that would promote informed choice among parents and students.

The state will not hold the schools accountable for student achievement or other dimensions that call for assessments of the quality of school performance. When it comes to performance, schools are held accountable from below, by parents and students who directly experience their services and are free to choose. The state will play a crucial supporting role here in monitoring the full and honest disclosure of information by the schools--but it is only a supporting role.

Choice as a Public System

This proposal calls for fundamental changes in the structure of American public education. Stereotypes aside, however, these changes have nothing to do with "privatizing" the nation's schools. The choice system we outline would be a truly public system--and a democratic one.

We are proposing that the state put its democratic authority to use in creating a new institutional framework. The design and legitimation of this

framework would be a democratic act of the most basic sort. It would be a social decision, made through the usual processes of democratic governance, by which the people and their representatives specify the structure of a new system of public education.

This framework, as we set it out, is quite flexible and admits of substantial variation on important issues, all of them matters of public policy to be decided by representative government. Public officials and their constituents would be free to take their own approaches to taxation, equalization, supplementary funding for the disadvantaged, treatment of religious schools, parent add-ons, and other controversial issues of public concern, thus designing choice systems to reflect the unique conditions, preferences, and political forces of their own states.

Once this structural framework is democratically determined, moreover, governments would continue to play important roles within it. State officials and agencies would remain pivotal to the success of public education and to its ongoing operation. They would provide funding, approve applications for new schools, orchestrate and oversee the choice process, elicit full information about schools, provide transportation to students, monitor schools for adherence to the law, and (if they want) design and administer tests of student performance. School districts, meantime, would continue as local taxing jurisdictions, and they would have the option of continuing to operate their own system of schools.

The crucial difference is that direct democratic control of the schools--the very capacity for control, not simply its exercise--would essentially be eliminated. Most of those who previously held authority over the schools would have their authority permanently withdrawn, and that authority would be vested in schools, parents, and students. Schools would be legally autonomous: free to govern themselves as they want, specify their own goals and programs and methods, design their own organizations, select their own student bodies, and make their own personnel decisions. Parents and students would be legally empowered to choose among alternative schools, aided by institutions designed to promote active involvement, well-informed decisions, and fair treatment.

Democracy and Educational Progress

We do not expect everyone to accept the argument we have made here. In fact, we expect most of those who speak with authority on educational matters--leaders and academics within the educational community--to reject it. But we will regard our effort as a success if it directs attention to America's institutions of democratic control and provokes serious debate about their consequences for the nation's public schools. Whether or not our own conclusions are right, the fact is that these issues are truly fundamental to an understanding of schools, and they have so far played no part in the national debate. If educational reform is to have any chance at all of succeeding, this has to change.

In the meantime, we have to believe that the current "revolution" in American public education will prove a disappointment. It might have succeeded had it actually been a revolution, but it was not and was never intended to be, despite the lofty rhetoric. Revolutions dismember old institutions and replace them with new ones. The 1980s reform movement never seriously thought about the old institutions, and certainly never considered them part of the problem. They were, as they had always been, part of the solution—and, for that matter, part of the definition of what democracy and public education are all about.

This identification has never been valid. There is nothing in the concept of democracy to require that schools be subject to direct control by school boards, superintendents, central offices, departments of education, and other arms of government. Nor is there anything in the concept of public education to require that schools be governed in this way. There are many paths to democracy and public education. The path America has been trodding for the past half-century is exacting a heavy price—one the nation and its children can ill afford to bear, and need not. It is time, we think, to get to the root of the problem.

A version of this statement, entitled "America's Public Schools: Choice Is a Panacea," was published in The Brookings Review (Summer 1990).

Representative HAMILTON. Ms. McDonnell, please proceed.

STATEMENT OF LORRAINE M. McDONNELL, SENIOR POLITICAL SCIENTIST, RAND CORP.

Ms. McDONNELL. Mr. Chairman, these are both good and bad times for American schools.

[Bells ring.]

Representative HAMILTON. I'll just tell you that's a vote, and I'll have to check myself to see what it is. It's a vote. Why don't you proceed for about 5 minutes, and then I'll have to go vote. All right?

Ms. McDONNELL. All right. As I was saying, these are both good and bad times for American schools. On the one hand, the U.S. educational system faces unprecedented problems of poor student performance at a time when the kinds of students who need to be educated and the demands of the economy require accessible productive schooling for all.

Yet, at the same time, promising solutions to these problems abound. They range from the incremental to the radical. Some solutions focus on the organization of schools, others concentrate on the personnel who teach there, while still others seek to change what is taught and how it is taught.

Most current proposals for restructuring American education focus inside individual schools and classrooms, but some also attempt to alter the school's fundamental relationship with higher levels of government. Still other proposals hope to link schools more effectively with those agencies charged with caring for children's health and welfare or with the major economic and cultural institutions in local communities.

What all these solutions share is an optimistic belief that they can solve the very complex problems facing American schools.

What I would like to do today is also express optimism, but try to be a bit more realistic than some educational reform advocates have been. My argument is simply that while promising solutions are plentiful, many address only one aspect of a multifaceted problem, and most exist only as theoretical ideas or unique experiments.

Consequently, the major challenge for the next decade is neither to analyze further the problems besetting American schools nor to identify more innovations. Rather, it is to determine which combinations of innovative strategies work best in different kinds of local communities, to translate those innovations into widespread practice, and to ensure that in the effort to create productive schools we do not lose sight of the equally important need for democratic education.

Defining the challenge in this way puts the emphasis on dissemination, on questions of feasibility and political support, on avoiding fragmentation in educational policies and reform strategies and on balancing educational, economic and political objectives.

I would like to suggest three areas where the Federal Government might contribute to improving the U.S. educational performance.

The first is to provide inducements that encourage dissemination and widespread changes in educational practice. Moving from innovation to widespread practice has always been a problem in education as in other social policy areas. The local districts and schools most likely to attempt major innovations are often unique either because of higher-than-average levels of resources, expertise, or commitment, or at the other extreme, because they are in such a state of crisis that incremental change would accomplish too little or come too late.

The current restructuring movement is no exception. Despite its high visibility and all the discussion it has engendered, major experiments in restructuring are still few and many stem from very unique circumstances.

Since the 1960's, the Federal Government has used some of its funds as inducements to encourage educational innovations, and we can think of the curriculum reform by the National Science Foundation or the old ESEA titles III and IV(C).

It has also attempted to disseminate successful projects through mechanisms such as the Joint Diffusion Network, but the Federal emphasis has traditionally been on innovation with much less concern shown for sustaining new strategies and encouraging the conditions needed to translate them into everyday practice.

Federal efforts to encourage educational innovation have traditionally fallen short of expectations because they have failed to consider those local political and organizational factors that determine whether new instructional strategies will be successfully implemented.

If the Federal Government does decide to give renewed prominence to encouraging innovation, it needs to learn the lessons of past experience. Investing in promising experiments is only a first step. Without information about the conditions under which reform strategies will be compatible with different local needs and incentives and without the resources of move from innovation to widespread practice, the reforms of the 1990's will go the way of open classrooms, the new math, and educational television.

Representative HAMILTON. I will have to interrupt you, and I apologize for interrupting you. I'll have to go vote. So we'll have a 15-minute recess here.

[Recess taken for Representative Hamilton to vote.]

Representative HAMILTON. The committee will resume its sitting, and you may proceed, Ms. McDonnell.

Ms. McDONNELL. All right. Thank you.

I was talking about the need for the Federal Government not just to fund innovations, but also to be attentive to the question of how to get from innovations to widespread practice, and I was arguing that they should only fund pilot projects, whether they be to create schools of choice, more rigorous curricula, school-health linkages, or whatever, that demonstrate the potential for broad-based implementation.

This can be demonstrated by the intent and support of State governments and school districts, whether it be through matching funds or other ways. These projects also need to pay attention not just to what works educationally, but also to what incentives different factors have to encourage or resist change, what fiscal re-

sources and levels of professional expertise are necessary, and which solutions best match the demographic, educational, and economic problems experienced by different local communities.

The second role that the Federal Government should consider is to sustain its traditional role in promoting educational equity and providing for students with special needs, but approach that role with greater attention to comprehensive strategies that avoid fragmentation and focus on student's total education experience.

Arguing that Congress ought to take a more comprehensive approach to improving the performance of the Nation's schools clearly goes against some 30 years of Federal intervention.

Now it's true that one reason for the proliferation of Federal programs has been the addition of new programs as the needs of different inadequately served groups are recognized. But fragmentation has also come from symbolic responses to what could be called the "issues of the day"—through the establishment of small categorical programs—and I think we are seeing that now with the whole reform movement.

The Federal Government's ability to rely on more comprehensive strategies is also mitigated by the limits of its regulatory power over schools, its distance from individual schools and classrooms and, as a consequence, its limited influence over those factors which most directly affect the quality of teaching and learning.

Nevertheless, significant improvements in educational performance will not occur unless concerted efforts are made across the sectors—education, health and social welfare; the public and private sectors; prekindergarten through the transition to work—and also among all aspects of schooling—organization, personnel, and curriculum.

The Federal Government needs to contribute to, not hinder, integration. I would just point out that I think a step in that direction is seen in the reauthorization of the Carl Perkins Vocational Education Act which encourages integration between academic and vocational skills and also coordination between the postsecondary and secondary levels.

Then, finally, the Federal Government can assume a leadership role in efforts to strengthen civil learning and to consider the broad consequences of different models of educational governance.

There are two concrete steps that the Federal Government can take in this area within its general leadership or bully-pulpit function.

The first is to focus the Nation's attention as much on educating citizens as on training future workers. Much of the rationale for improving educational performance of United States over the past decade has stemmed from a concern about declining economic competitiveness. During this same time period, however, the Nation has also witnessed a significant decline in voter turnout, particularly among those aged 25 and under.

Other evidence of diminished citizenship in its broadest sense includes the rising prominence of single-interest policies of the exclusion of broader conceptions of the public interest, and a focus on short-term political and economic objectives with little thought to preparing the Nation for the next century.

Clearly, the schools cannot rectify these problems alone, but they do play a critical role in the political socialization of students. Effective civic learning is important precisely because it gives students a sense of belonging to a larger community, and that in turn orients their attention to values beyond their own self-interest and gives them a longer time horizon.

Over the past decade, the Federal Government has focused considerable attention and resources on the improvement of science and mathematics education. If we are to have both productive workers and strong citizens, the Federal Government needs to pay equal attention to the subjects that increases civic learning; namely, the humanities and the social sciences.

A second function that the Federal Government can play in the quest for schooling that is both productive and democratic is to assist in rethinking what the role of each level of government should be in leading the Nation's educational system. The past decade saw a major shift in the functions that each is playing, and the 1990's are likely to be a time of further sorting of roles and responsibilities.

During the 1980's, the Federal role diminished while the State proportion of funding of education increased, and its policy role expanded from questions of funding and governance to what is taught, who teaches, and how it is taught. During that same period, many local school boards questioned what their role should be given growing State influence.

Now reform proposals, such as school-based management and choice, would devolve more authority to individual schools, while at the same time continuing demands for greater political accountability seek to retain considerable authority at the State and local levels.

We needed extended analysis and dialogue not just about who should do what, but also about the consequences of different models of educational governance for student learning, for the motivation of the people who work in schools, and for the diverse societal goals that schools are expected to pursue.

While the Federal Government will continue to be the junior partner in whatever models of educational governance emerge, it can play a key role in analyzing and defining the responsibilities of each governmental level through its research priorities and through its convening function, whether it be congressional hearings or White House summits.

Thank you.

Representative HAMILTON. Thank you, Ms. McDonnell.

[The prepared statement of Ms. McDonnell follows:]

PREPARED STATEMENT OF LORRAINE M. McDONNELL¹

The challenge faced by those seeking to improve the quality of American elementary and secondary education stems not from a lack of understanding about the nature of the problem or even from an absence of promising solutions. Rather, it arises from the need to determine which innovative approaches are most effective in improving learning for different types of students in different local communities, and from an inability to translate those innovations into widespread practice. This challenge is made more difficult by a lack of comprehensive strategies for enhancing individual student outcomes while also accommodating the diverse societal goals that schools must pursue.

In my remarks, I would like to focus on three aspects of this challenge:

- o creating the conditions needed to move from promising experiments to widespread improvements in policy and practice
- o reducing fragmentation in education policies, programs, and reform strategies
- o developing an educational system that is both productive and democratic.

In discussing these points, I will concentrate on what the federal role might be in each area.

THE CONTEXT: WELL-KNOWN PROBLEMS AND MULTIPLE SOLUTIONS

Numerous scholarly studies and policy reports have documented the problems that the U.S. educational system must address: the poor performance of American students relative to their counterparts in countries that compete economically with the United States; the need to prepare a future workforce comprised largely of women, minorities, and immigrants whom schools have traditionally failed to educate well; the pressure to assume increased responsibilities for the care and development of children as the dynamics of American family life change--to name just the major ones.

Proposed solutions to these problems abound. They range from the incremental (e.g., devolving more authority over personnel, budget, and curriculum to local schools) to the radical (e.g., transforming the basis of educational accountability from political to market controls). Some solutions focus on the organization of schools; others concentrate on the personnel who teach there; while still others seek to change what is taught and how it is taught. Most current proposals for restructuring American education focus inside individual schools and classrooms, but some also attempt to alter the schools' fundamental relationship with higher levels of government. Still other proposals hope to link schools more effectively with those agencies charged with caring for children's health and welfare, and with the major economic and cultural institutions in local communities.

¹The views and conclusions are the author's and should not be interpreted as representing those of the RAND Corporation or any of the agencies sponsoring its research.

The current state of research knowledge is insufficient to establish a causal link--or even an empirical one in some cases--between these various strategies and student outcomes. The relationship between a particular strategy and outcomes such as achievement, school completion, and work-related skills is clearest in the case of curriculum reform and least well-documented for the strategy farthest from the classroom, strengthening links with the larger community.² Nevertheless, there is widespread agreement among educators, policymakers, business leaders, and researchers alike that at least some of these strategies hold a strong likelihood for improving the quality of student learning. Consequently, the next few years will be a time of intense experimentation as various combinations of strategies are attempted in local districts and schools throughout the country.

At the same time, the quality of data about the status of schooling in the United States will improve as initiatives such as the national education goals, promulgated by President Bush and the nation's governors, necessitate the collection of more comprehensive and valid data not just about educational outcomes, but also about how schools are organized and what curricula students experience there. The collection and reporting of more complete and valid data about all aspects of schooling from pre-school through the transition to work is one of the key roles that the federal government can play in efforts to determine whether proposed solutions actually do improve student learning.³

MOVING FROM PROMISING INNOVATIONS TO WIDESPREAD PRACTICE

Even when we know more conclusively which strategies work in improving student learning, however, the problem will by no means be solved. The issue is not whether some American schools can teach students effectively or whether some can nurture innovative practices; there have always been promising experiments and small oases of excellence and

²Even in exploring the links between school organization and student achievement using nationally-representative data, John Chubb and Terry Moe limit the analysis in their new book, *Politics, Markets, and American Schools*, to the high school level. Their study also relies on test items that, according to some testing and measurement experts, are designed primarily to measure students' aptitude rather than their achievement--thus making it difficult to interpret the relationship between school variables and changes in student outcomes. The problem is further compounded because the High School and Beyond data base does not allow for a valid assessment of the effects of differences in curricular content and instructional strategies across schools.

³After sharp decreases during the 1980s, federal support for educational research and statistics has recently begun to grow. Earlier this month, the House Appropriations Committee adopted a spending plan which would increase the Department of Education's research and statistics activities by \$38.6 million to \$133.9 million in fiscal year 1991. Still, as David Kearns and Denis Doyle argue in their book, *Winning the Brain Race*, the federal government's education research budget in 1987 was less than 15 percent of what the Xerox Corporation spent on research and development, and this federal support represented less than one tenth of one percent of national expenditures for education operations and capital outlay.

creativity in individual schools across the country. The challenge is to implement and then sustain those ideas broadly in schools with different kinds of students, resources, and community preferences. Whether significant and widespread improvement is possible will depend not only on how well various reform proposals increase student learning, but also on how well they can be accommodated within the political and financial realities in which public schools must operate.

Moving from innovation to widespread practice has always been a problem in education, as in other social policy areas. The local districts and schools most likely to attempt major innovations are often unique: either because of higher-than-average levels of resources, expertise, or commitment, or at the other extreme, because they are in such a state of crisis that incremental change would accomplish too little or come too late. The current restructuring movement is no exception. Despite its high visibility and all the discussion it has engendered, major experiments in restructuring are still few, and many stem from unique circumstances.

How much of the market model extrapolated from the private sector can be applied to public schools that, by virtue of their publicly-funded status, must be responsive to broader societal values and wider constituencies than just immediate student and parent consumers? Will the form of school-based management operating in districts with good labor-management relations such as Dade County work the same way in a district such as Los Angeles where tensions between the teacher union and district management are high? Can the kind of choice plan initiated in a relatively homogenous, high-achieving state such as Minnesota be exported to a state such as California with more heterogenous and lower-achieving students? Will local school councils implemented as a "last resort" policy in a troubled district such as Chicago operate similarly in a "lighthouse" suburban district? Under what conditions will teachers be willing to group students of different ability levels together, in the ways advocated by many university researchers, when they have often been among the strongest advocates of academic tracking? These are just a few examples of questions that need to be answered before promising experiments can be successfully translated into widespread practice.

Answering such questions requires information not just about what works educationally, but also about what *incentives* different actors have to *encourage or resist change*, what *fiscal resources* and levels of *professional expertise* are necessary, and *which solutions best match the demographic, educational, and economic problems experienced by different local communities*. In addition, the *start-up costs* associated with implementing reforms on a widespread basis are likely to be higher than for piloting the original innovation because of differences in local capacity and commitment. Therefore, some of these costs will need to be subsidized, at least in the short-term.

Since the 1960s, the federal government has used some of its funds as inducements

to encourage educational innovations. One can think of programs such as the National Science Foundation's efforts to enhance the science, mathematics, and social studies curricula, the Follow Through planned variation experiment to test different models for educating disadvantaged children in kindergarten through third grade, and Title III (later Title IV-C) of the Elementary and Secondary Education Act to encourage local development of innovative practices. The federal government has also attempted to disseminate successful projects through mechanisms such as the Joint Diffusion Network. But the federal emphasis has traditionally been on innovation, with much less concern shown for sustaining new strategies and encouraging the conditions needed to translate them into everyday practice. As Richard Elmore and Milbrey McLaughlin argue in their report, *Steady Work*, federal efforts to encourage educational innovation have traditionally fallen short of expectations because they have failed to consider those local political and organizational factors that determine whether new instructional strategies will be successfully implemented.

It is not clear, given the redefinition of the federal role in education during the 1980s, whether it can play a significant part in current efforts to restructure American schools. That task may fall completely to the states and local communities. However, if the federal government does decide to give renewed prominence to encouraging innovation, it needs to learn the lessons of past experience. Investing in promising experiments is only a first step: without information about the conditions under which reform strategies will be compatible with different local needs and incentives, and without the resources to move from innovation to widespread practice, the reforms of the 1990s will go the way of "open classrooms," the "new math," and educational television.

REDUCING FRAGMENTATION

Some months ago, I wrote a paper on school restructuring, and argued that in its current state, the restructuring movement could be characterized as suffering from the "blind men and the elephant" syndrome. Although a consensus has emerged on the problems facing American education, analyses of their causes still differ. As a result, major restructuring strategies each address different parts of the educational system--school organization, teacher quality, curriculum content, parental participation, support services, and so on. Clearly, educational problems are multi-faceted in their causes and solutions, and some combination of restructuring reforms is needed. However, few efforts are being made to design any type of comprehensive strategy. Worse yet, some restructuring proponents are not even talking with each other on a regular basis. This is particularly true for those advocating changes in the organization of schooling and those espousing different curricula and teaching methods. One group is focusing on the schooling process and the other on its content. For reform to be effective, however, these two must be joined. Right now, each holds one piece of the elephant, and without serious discussion across the

different reform camps, restructuring will remain a disjointed enterprise.

Fragmentation and the proliferation of strategies and programs are not unique to restructuring proposals. The categorical approach of the federal government in funding programs for special populations and special purposes has led to considerable fragmentation. Some of this proliferation can be attributed to the federal government's long-standing concern about students with special needs who have not been adequately served in the general education programs funded by states and local school districts. Examples of programs, added as the needs of particular groups were recognized, include: Chapter 1, the Education for All Handicapped Children Act, and bilingual education. The same pattern can also be seen in the array of federal education and job training programs such as the Carl Perkins Act, the Job Training Partnership Act, and the Job Opportunities and Basic Skills program which, while they overlap in the populations served, provide training at different levels of intensity and duration. Although the fragmentation of these categorical programs with their different eligibility and service requirements have often made local delivery less effective than it could be, recent studies suggest that as these programs have matured, local providers have been able--if not always to integrate them--at least to avoid duplication of effort.

But a second source of fragmentation in federal programs is less defensible in terms of the traditional federal role and is more likely to diminish the impact of federal dollars. It stems from the tradition of creating small categorical programs in response to what might be called the "issues of the day." Often fiscal and other constraints make these programs no more than symbolic responses, but the urge to create them continues, especially at a time when public expectations for improved schools are high. Recent examples include legislation dealing with teacher training, merit schools, mathematics and science training, drug-free schools, and adult literacy. Each of these purposes are worthy, but in providing inducements that encourage a fragmented approach to educational reform, federal funding is directly at odds with the fundamental and comprehensive change that many political leaders and educators now believe is necessary.

Arguing that Congress ought to take a more comprehensive approach to improving the performance of the nation's schools clearly goes against some thirty years of federal intervention. The federal government's ability to rely on more comprehensive strategies is also mitigated by the limits of its regulatory powers over schools, its distance from individual schools and classrooms, and as a consequence, its limited influence over those factors which most directly affect the quality of teaching and learning. Nevertheless, significant improvements in educational performance will not occur unless concerted efforts are made across sectors--education, health, and social welfare; public and private; pre-kindergarten through the transition to work--and among all aspects of schooling--organization, personnel, and curriculum. The federal government needs to contribute to,

not hinder, that integration.

CREATING A PRODUCTIVE AND DEMOCRATIC EDUCATIONAL SYSTEM

Because many of the most significant solutions being proposed to the problems faced by the American educational system seek to change who has authority over key educational decisions, they raise profound, normative questions about how public education should be governed and which values should prevail. For example, is the market mechanism inherent in choice plans consistent with the broader communitarian goals of public education? What mechanisms can be used to reconcile the demands of professional accountability with those of political or democratic accountability? How can curricula meet expert standards of sound subject-matter knowledge, and not violate the norms of diverse local communities? These are the kinds of questions that often are not asked until after policies are implemented and begin to produce their effects, intended and otherwise. However, if restructuring is likely to transform schools as dramatically as its proponents expect, the implications of those changes for the democratic control of public education need to be articulated before, rather than after, they are implemented.

Not only do reform proposals raise these fundamental questions, but some also present contradictory views of the role of politics in public schooling. For example, in their recent book, John Chubb and Terry Moe argue that the poor performance of schools is the result of too much direct political control. On the other hand, implicit in the proposals of others such as the nation's governors is a belief that while schools should be accorded more autonomy, there should also be greater political accountability for educational outcomes. Consequently, while a number of governors have advocated greater choice within public education, a majority of states also have political accountability systems that reward, assist, or punish schools based on their performance on a set of uniform criteria. While reliance on market mechanisms need not be entirely at odds with notions of democratic accountability, reconciling the two poses tough questions about the obligations of public institutions to their immediate clientele as opposed to the broader community on whose consent they exist and are supported. These are not just abstract philosophical issues. One can imagine, for example, a school that provides a curriculum consistent with the wishes of parents and the students enrolled there, but that does not provide the kind of education considered important by either employers in the wider labor market or citizens of the broader community.

These are thorny, value-laden issues that can only be answered through the political process. Yet for a variety of reasons, political control over schools is likely to continue. Therefore, the challenge will be to make schools both productive in their outcomes and democratic in their governance. The federal role in achieving such a balance is likely to lie more in its "bully pulpit" function than in its legislative activities. But there are two concrete steps that it can take within that general leadership function.

The first is to focus the nation's attention as much on educating citizens as on training future workers. Much of the rationale for improving educational performance in the United States over the past decade has stemmed from a concern about declining economic competitiveness. During the same time period, however, the nation has also witnessed a significant decline in voter turn-out, particularly among those under age 25. Other evidence of diminished citizenship in its broadest sense include: the rising prominence of single interest politics to the exclusion of broader conceptions of the public interest; our inability to address serious social problems such as homelessness and drug abuse; and a focus on short-term political and economic objectives with little thought to preparing the nation for the next century. Clearly, the schools cannot rectify these problems alone, but they do play a critical role in the political socialization of students. Effective civic learning is important precisely because it gives students a sense of belonging to a larger community, and that in turn, orients their attention to values beyond their own self-interest and gives them a longer time horizon. Over the past decade, the federal government has focused considerable attention and resources on the improvement of science and mathematics education. If we are to have both productive workers and strong citizens, the federal government also needs to pay equal attention to the subjects that increase civic learning, namely the humanities and the social sciences.

A second function that the federal government can play in the quest for schooling that is both productive and democratic is to assist in rethinking what the role of each level of government should be in leading the nation's educational system. The past decade saw a major shift in the functions that each level is playing, and the 1990s are likely to be a time for further sorting of roles and responsibilities. During the 1980s, the federal role diminished, while the state proportion of funding for education increased and its policy role expanded from questions of funding and governance to what is taught, who teaches, and how it is taught. During that same period, many local school boards questioned what their role should be, given growing state influence. Now reform proposals such as school-based management and choice would devolve more authority to individual schools, while continuing demands for greater political accountability seek to retain considerable authority at the state and local levels. We need extended analysis and dialogue not just about who should do what, but also about the consequences of different models of educational governance for student learning, the motivation of the people who work in schools, and the diverse societal goals that schools are expected to pursue. While the federal government will continue to be the junior partner in whatever models of educational governance emerge, it can play a key role in analyzing and defining the responsibilities of each governmental level through its research priorities and through its convening function, whether it be Congressional hearings or White House summits.

CONCLUSION

Some school reform advocates are now arguing that there are simple solutions to the complex problems facing American education. In a sense, I have argued just the opposite. While promising solutions are plentiful, many address only one aspect of a multi-faceted problem and most exist only as theoretical ideas or unique experiments. The major challenge for the next decade is neither to analyze further the problems besetting American schools nor to identify more innovations. Rather it is to determine which combinations of innovative strategies work best in different local communities, translate those innovations into widespread practice, and ensure that in the effort to create productive schools, we do not lose sight of the equally important need for democratic education. Defining the challenge in this way puts the emphasis on dissemination, questions of feasibility and political support, avoiding fragmentation in educational policies and reform strategies, and on balancing educational, economic, and political objectives.

If my recommendations for what the federal role should be lack concreteness, it stems from two reasons. First, given the diminished federal role in education during the 1980s and current fiscal constraints, it is not immediately clear whether the federal government is either willing or able to influence the policy agenda in the way that it did some 25 years ago. Second, the kind of challenge that I am arguing needs to be met does not easily lend itself to specific legislative initiatives. Rather, it requires a change in the way that federal officials approach policymaking and implementation over the longer-term.

Nevertheless, this perspective does suggest several concrete steps that the federal government can take. These include:

- o Continuing to enhance its research capacity so that we gain a more complete understanding of how students learn and how factors such as educational governance, school organization, personnel, and curricula affect schooling outcomes for different types of students
- o Emphasizing inducements that encourage dissemination and widespread changes in educational practice
- o Sustaining the federal role in promoting educational equity and providing for students with special needs, but approaching that role with greater attention to comprehensive strategies that avoid fragmentation and focus on students' total educational experience
- o Assuming a leadership role in efforts to strengthen civic learning and to consider the broad consequences of different models of educational governance.

Representative HAMILTON. Mr. Levin, you spoke a lot about school transformation and greater incentives for school transformation. I'm not sure I really understood what you mean by transforming the schools. Could you spell that out for me a little bit?

Mr. LEVIN. Yes. Congressman Hamilton, the usual approach to changing schools or improving them is to take one part of the school, a part of the math curriculum or language or to provide some new form of instruction or to try to get some changes and decisionmaking within the school, and the problem is that this is a piecemeal approach when the basic school has not changed. We are simply adding on little pieces basically to a vehicle that's doing the same thing that is done year after year after year.

Since I guess we both go back at least until the 1950's in terms of our romance with the automobile, one can think of that 1955 Ford or Chevy where each year we put a new grill on it, we remove chrome, we add chrome and so on, but if you were dissatisfied with that car with its mileage or performance or comfort, those things weren't going to change because the basic vehicle was the same, and that's the problem with this present piecemeal approach.

So when we mean transformation, we really mean transformation in the entire vehicle so that it's performing, it has different directions and it has different goals, and with respect to at-risk students, we have to really change these schools so that their focus is not on remediating these children and treating them as if they are somehow damaged, which they are not, because these are just children.

By the way, an at-risk child, it's not the child that the at riskness is a part of, but it's the situation. The child is caught in the mismatch, and we have to transform the entire school to change to that so the school works in behalf of the child to accelerate his or her progress in getting him or her into the mainstream.

Representative HAMILTON. Well, how do you do that?

Mr. LEVIN. Well, our particular approach is to change three basic ways in which the school functions.

The first is to get the school to focus on a unity of purpose on the needs of these children, and this means moving away from the notion that each teacher sees himself or herself as a second grade teacher or a special education teacher or a chapter 1 teacher. Each of those teachers can do his or her own job in a narrow sense and yet the school is not doing its job in any real sense. So that's the first step.

The second step is to get the school to take responsibility for the important educational decisions as well as for the consequence of those decisions. So that's the second part that we build into our program. Good decisions are informed decisions and there has to be accountability. Teachers and staff need to have technical assistance, information and staff development in order to undertake that role.

The third is the pedagogy, the teaching and learning part, which is instead of thinking about these kids as repair cases or remediation cases, look for their strengths and build on their strengths in an enrichment or an accelerated program.

So these three have to be encompassed.

Representative HAMILTON. Where did you get the resources for these 40 schools that you put into this accelerated program you're speaking about?

Mr. LEVIN. Basically in a dignified way going around with a tin cup to private foundations, corporations, and so on.

Representative HAMILTON. I see, and you persuaded them to put money into specific schools, is that right, across the country?

Mr. LEVIN. No. We persuaded them to provide the small foundations funding for schools at particular sites, but the larger amount of funding in terms of preparing the kinds of materials and training programs and so on, we've been able to get broader funding.

In many cases, for example, we have a very large grant from the Chevron Corp., about \$1½ million, and Chevron is self-interested in what happens to these children. It has not only markets in the areas where the schools are, but it also has major employment facilities in the San Francisco Bay area, Los Angeles, Houston, and New Orleans. So they are helping us to set up satellite centers at four universities in those areas to begin to create a social movement in a sense of accelerated schools in those metropolitan regions.

Representative HAMILTON. Now your estimate of the number of additional resources runs very, very high. You're talking about multibillions of dollars, \$20 billion or so. Where do you get that money?

Mr. LEVIN. Well, there are two stages. The stage of transforming schools is really not that expensive. I've mentioned that if we had a 6-year period and we can get, for example, a 2-percent increase in the budget, and if they are spending \$4,000, and that's about \$80 per student per year, we can get the released time, the training and the technical assistance and so on that will transform schools. But the second part is the unmet needs out there. We want to do the first part because that will suspend any additional funding much more efficiently than the present schools are doing it.

The second part seems to me to be one where the States have to contribute their share, local governments and the Federal Government. I have made an argument that in the long term the Federal Government needs to provide a larger portion of the share for these students because even if you take some simple arithmetic, there is an increase in productivity and an increase in income. From that there is an increase in tax revenues. The Feds get 60 percent of the increase in tax revenues and the States and locals about 40 percent on the average. But at the present time the Feds are putting in about 5 percent, paying about 5 percent of the bill.

Representative HAMILTON. We hear that line of argument very frequently up here, and the payoff is always down the road somewhere, and I don't really dispute what you say, but from our standpoint it requires, and it would be true of the States as well, upfront money that's hard to come by in budgets today even though the logic of what you say sounds very good to me.

Mr. LEVIN. Well, I understand that problem, but we can get started at least transforming these schools so that the present investments that they are making are done more efficiently.

Representative HAMILTON. Now Mr. Chubb says that in his analysis of things he looks at this education problem, it seems to me,

very differently than you do. You focus on the so-called at-risk student.

Mr. Chubb, you're really talking about fundamentally restructuring the whole system, aren't you?

Mr. CHUBB. Well, that's correct, although the goal, that is the kinds of schools you would create, would very likely be quite similar to the kinds of schools that Mr. Levin is trying to create through other means.

We are looking for schools that will take full responsibility for their performance, where the entire school will be focused on the objective of raising the achievement of their kids, where principals will actually have a stake and a tremendous interest in improvement, and where teachers will have a similar stake and also have the freedom to operate as professionals using their creative talents to do what is necessary for the kids.

Representative HAMILTON. Let me ask you, as you look at school systems today, are you impressed with the fact that we have some very, very good schools, and then we have some very, very bad schools?

Mr. CHUBB. Absolutely.

Representative HAMILTON. In a sense we almost have kind of a two tier, I don't know, but we have the ability in this country to conduct some very excellent schools.

Mr. CHUBB. Absolutely. But what we find, and this is the difficult thing for reform, we find that in some places where you're operating with a small-scale school system where there are not a lot of schools in the system, where school board politics do not lead to enormous conflicts among multiple constituencies, where the lines of accountability are pretty simple and the superintendent can actually go out and visit the few schools—in those kinds of settings you have a lot of authority decentralized to the schools, principals are treated like leaders, teachers are treated like professionals, and accountability is there, schools generally work well.

But when you get into the large systems, where you also find excellent schools—in every big city, in the big suburban systems, and in other places where you don't expect them—the reason schools turn out to be excellent is not because of something systemic, but usually because of the rare talents of a particular principal or a particular group of teachers—teachers who when asked well how they succeed say, well, we do what we want; we work around the system. These schools, however, tend to be exceptions.

That's the problem. We can't as a reform strategy try to create all schools that are exceptions and all schools that know how to get around the system. We can't rely on maverick principals to solve our problems. We need to create a system that encourages leadership, professionalism, and focus on a system which really encourages schools to take responsibility for doing a good job. You have to hold schools accountable.

Representative HAMILTON. Ms. McDonnell and Mr. Levin, how do you look at Mr. Chubb's proposal? He says, for example, "the guiding principle has to be that public authority must be put to use in creating a system that is almost entirely beyond the reach of public authority."

What do you think of that?

Ms. McDONNELL. Well, Congressman Hamilton, I must admit that I start from very different value premises. I believe that public schools have to be responsive both to their immediate consumers; namely, the parents and students, but they also must be responsive to the larger political and economic community. We can think of examples where you would see a school that was very responsive to its immediate consumers, but that might not be responsive to say the larger labor market or to the larger political community.

My personal feeling is that we have to balance the so-called rights of consumers and the rights of citizens because we are talking about a publicly funded entity that exists by the consent of the governed. So I guess I have a different point of view.

Representative HAMILTON. He moves in a very different direction than you would move in schools?

Ms. McDONNELL. Yes, sir.

Representative HAMILTON. Mr. Levin, how do you react to Mr. Chubb's view here?

Mr. LEVIN. Well, I think we share some of the same assumptions about what has to be done, but in terms of the vehicle, he has much more faith in what I consider to be something that is virtually untested. I have much more faith in something we're testing right now and that we have gained excellent results.

What's interesting to me are the data that he has worked with. When Coleman worked with them, Coleman came out with the conclusion that private schools have higher achievement than public schools controlling for the race and the socioeconomic status of students.

But what was not publicized is that the difference was very tiny. Private school students scored about the 52d percentile relative to public school students in the 50th percentile.

More shocking to me is that about 48 percent of private school students scored below the average public school student.

Representative HAMILTON. Mr. Chubb, did you find that private schools are almost always better than public schools?

Mr. CHUBB. No. There is a considerable amount of overlap.

Representative HAMILTON. In general? Can you generalize?

Mr. CHUBB. Well, if you want to look at our distribution of schools, we had a representative sample. So about three-fourths of our schools were public and about one-fourth of our schools were private. The schools that we classify as effective, those in the top 25 percent, about two-thirds of those were public schools and about one-third of those were private schools. We have a lot of excellent public schools in the country.

The difficulty from a reform standpoint is that public schools are usually excellent either because they are in small systems with relatively easy-to-educate children, where they are taking advantage of the circumstances, or they are exceptional cases where, as I said, the people that are in the schools are unusually talented folks who are finding ways to make the schools good against all odds. As I said, that doesn't provide a recipe for reform.

Representative HAMILTON. Now you're going to set up a choice office in each district and children are going to be able to attend

the school that they want to and the State will pay a sum of money for each child directly to the school?

Mr. CHUBB. Right. Despite the caricatures that you may have seen in the press, our proposal is for a public system. All of the schools play by the same public ground rules and those can be as extensive or as limited as a State chooses. All of the schools are funded strictly with public funds. The admissions process is supervised by the government with assistance and information and so forth being provided. It's a fully public system.

Representative HAMILTON. How much would the State legislatures set requirements and goals and mandates?

Mr. CHUBB. Well, what we would propose is that the State legislature set basic requirements for schools at different levels. So, for example, if you're talking about a high school, the State would establish graduation requirements, and requirements for teachers; that is, some sort of minimal certification requirements. Likewise there would be health and safety requirements for the schools facility. But the State would not go on to specify in the kind of detail that it does now in instructional methods, textbooks, and the exact content of the curriculum. That would be left up to the professionals within the schools.

Representative HAMILTON. Every school would set its own text books and curricula basically; is that correct?

Mr. CHUBB. They would make decisions, yes, about what teaching materials they thought were most appropriate and what instructional methods they thought were most appropriate.

Representative HAMILTON. Ms. McDonnell talked a lot about accountability. Where is your accountability in this system of yours now?

Mr. CHUBB. You have the accountability provided by the choices of parents. Parents look at what the school is doing, they look at whether their kids are learning or not, and they make those judgments. It's a very simple accountability mechanism. It doesn't require major assessments on the part of parents. It just asks parents to make a judgment about whether their child is learning.

What you have in the current system is a lot of accountability for following various rules and regulations, a lot of accountability for ensuring that you're using the right materials, following the right methods, adhering to the right personnel policies, but you have precious little accountability for results, and I think we would all agree that we have to have accountability for results. We should insist that all schools be excellent and that all schools perform.

But it's very, very difficult within a bureaucratic system to establish accountability mechanisms that don't become stifling in themselves, whether you're using standardized tests or some other method.

Representative HAMILTON. I would like to hear Ms. McDonnell and Mr. Levin comment on this. This is really a very radical restructuring of the school system, and I would like to get your reactions to what Mr. Chubb has proposed.

Ms. McDONNELL. When I think about accountability, I think of it as a series of concentric circles, and if you think about the school, the most immediate circle is parents and teachers, and the schools,

we would all agree, ought to be most accountable to them. But as I said before, I think if you go out from those circles there are local employers, there are the taxpayers, and so on. The degree of accountability to each of those circles should probably be less, but it has to be there.

Talking about State legislatures, one of the things that I found very interesting in the reforms of the 1980's, and we can all be critical of the mistakes that were made, one of the reasons why State legislatures did impose uniform course requirements is because they became very concerned, particularly in highly mobile States, that students would start in one school and get a different or usually less of an education in terms of access to curriculum and to content than they would in another school. State legislatures were concerned about the question of equity and access to rigorous learning, and I think that's an example of a role that the State legislature has to play.

I think the other issue that we have to think about is that there is an assumption here that schools that are not particularly good now will become good simply because the market mechanisms will be there. Usually there is an absence of capacity, whether it's because the most junior teachers happen to be there because the teachers with seniority can go some place else or whatever it is. I think there are a lot of other factors that one has to consider in thinking about these schools.

Mr. LEVIN. Again, I just want to reiterate that I agree with Mr. Chubb in a lot of the premises about what makes a good school, and my disagreement is only on the mechanism.

Now in 1979, I guess because California blows ill winds across the Nation with the prevailing southwesterlies, we had an attempt to get a voucher proposal on the ballot as a constitutional initiative. So for 1½ years there was a lot of debate and discussion over a very concrete proposal in the State.

Representative HAMILTON. Excuse me, you're not recommending vouchers, are you, Mr. Chubb?

Mr. CHUBB. No, we're not.

Mr. LEVIN. Well, you know, a rose is a rose by any other name, and as I read the proposal, both in the book and in the Brookings Review, it fits very closely the standard type of voucher proposal, only they call them public scholarships.

Mr. CHUBB. This is not a semantic difference, if I get a chance to respond here.

Mr. LEVIN. OK.

Representative HAMILTON. We'll give you a chance.

Mr. LEVIN. But the important point is a plan similar to the plan, whatever the name is called, that was proposed in California in 1979. We had to do an extensive analysis of the plan. We found, for example, that the plan would require tremendous amounts of transportation if there were to be a significant choice, not only among traditional district schools, but even within because our public transportation systems are quite poor.

In Palo Alto today, where I'm on the board, we are spending \$1,000 a year for every student who is transported in a very small district, about 8,000 students in a very compact district. You look at the costs of providing information in every community and then

you look at the costs of making sure that students are getting the services that they want, that is diagnosing them to make sure that they have the scholarships that take account of any special services that they need.

As you move in California, for example, from 1,000 school districts roughly that the State deals with to over 5 million units that you have to provide so-called scholarships for under their plan of the right type, transportation and so on, we concluded that the bureaucracy would be far, far, far larger than existed in California at the time and that the costs for noninstructional components would be considerably larger.

Mr. CHUBB. I just find it remarkable that any honest analysis of two systems of organization, one basically a monopoly controlled from the top down and the other more or less a marketplace, would conclude that the marketplace would be less efficient and more costly.

If a choice system is working, and that is if it is working in such a way that it drives the school and the school systems to be focused on the clients, what will almost inevitably happen is that more and more resources will be pushed down to the bottom. There is nothing inherent in education that provides returns to centralization. You don't get better schools by making them parts of large systems with a large and very expensive bureaucratic apparatus on the outside to control the schools.

Most of the talent and most of the technology necessary for successful education are right in the school, and if you have a choice system where the schools are competing and where people are really free to choose, you will end up with a great deal less bureaucracy and a lot more being spent within the school itself. That system cannot possibly cost more.

Let me give you an analogy. People talking about public school reform don't like to hear about private schools, and I realize that. So I mention these examples with some trepidation. Nevertheless, I think that private schools have a lesson to teach.

The Catholics have organized many of their schools into large school systems just as has been done in the public sector. There are citywide Catholic school systems. They also have a coherent set of values that they would like to impart. They have general notions, just as the public sector does, about what they would like the schools to accomplish. That would lead you to expect that they would require a fair amount of bureaucracy to implement their schools systems.

If you look at New York City though, for example, in the New York City public school system just within their central office, and this says nothing about lower layers of bureaucracy, the central office employs 6,600 people. The Catholic school system, which is one of the 10 largest school systems in the country, and though only about a fifth of the size of the public school system, is still a big one, their central office employs 30 people. The Catholic school system is remarkably decentralized and it's not because the Catholics abhor bureaucracy while the public likes bureaucracy. It has nothing to do with that. It has to do with the power of choice in the private sector and its absence in the public sector.

Representative HAMILTON. Let me ask you about this transportation problem that Mr. Levin brought up. Suppose you got two families out here in rural Indiana and they lived next door to one another, and family A wants to send their child to the school that is 100 yards down the road and family B wants to send their child into the county seat town. How do you solve that transportation problem?

Mr. CHUBB. Money has to be provided to transport children. We spend money on transportation now, and we would have to spend money on transportation then. But to appreciate the magnitude of the transportation problem, I think you have to ask yourself: Is the choice process going to change the supply of schools? If the answer is no, choice is going to leave us with exactly the kinds of schools that we have right now, then you are going to have a problem. There are going to be a small number of good schools and a large number of bad schools. Everyone is going to want to go from the bad neighborhoods to the good schools and you're going to have an enormous transportation problem.

That's not the idea of choice, however. The idea of choice is to encourage the improvement of schools, the diversification of schools. If more suppliers are allowed into the marketplace through satellite schools or charter schools or whatever concept of new public schools you want to entertain, there will be more public schools close to where more people live which then changes the kind of transportation problem you have. It minimizes it.

One other aspect of this. For various reasons, most having to do with politics, we have become wed to the notion that high schools should be enormous and comprehensive. Increasingly, however, that's viewed as a bad idea. If we had a market-driven system, we would have a larger number of smaller schools and you would have more choice within smaller areas, including rural areas. It's not clear at all if you had freedom of choice that rural communities would decide that the massive consolidation of schools was in all cases a good idea.

Representative HAMILTON. You could pretty clearly go the other way.

Mr. CHUBB. You could very clearly go the other way, and if that turns out to be better for education, that's obviously the direction that you would go.

So transportation is a problem only if you think in static terms. That is, the number of schools, the quality of schools will never change. If that happens, then choice is a failure and we may as well not do it.

Representative HAMILTON. Let me switch a little bit here. Should the Federal Government support the development of national performance standards for students?

Ms. McDonnell.

Ms. McDONNELL. That's a tough question. I suppose the Federal Government has already taken a step in that direction with the promulgation of the national education goals because in implementing those there is going to be some kind of standards.

I tend to think that student performance standards are really a State responsibility given its constitutional authority in that area. On the other hand, I think the Federal Government plays two very

important roles with regard to that. One is the bully-pulpit role, putting those national goals out and saying as a nation we are going to work toward them, and I think the second thing is in its research capacity, particularly in the collection and reporting of indicators. I think that has to be done and it has to be done better and more comprehensively than it's done now. But I think the danger is always that in collecting data somehow you affect practice in ways that might not be appropriate given the fact that different States have different goals and different needs. So I think there is a role for the Federal Government, but I think that it really is a lesser or a secondary role compared with the States.

Representative HAMILTON. You, of course, would oppose those, Mr. Chubb, from your point of view?

Mr. CHUBB. Not necessarily. My concern with the pursuit of national goals and national performance standards is that it begins people talking about national curricula.

Representative HAMILTON. Sure.

Mr. CHUBB. And, obviously, I think that's a bad idea——

Representative HAMILTON. And national tests.

Mr. CHUBB. You don't want a standardized curriculum. On the other hand, I think that the more information that we have and the better quality the tests and other sorts of information about how schools are doing, I think the better off we all are. I would strongly support the Federal development of better testing mechanisms and the dissemination of that kind of information.

Representative HAMILTON. How do you respond to these national performance standards, Mr. Levin?

Mr. LEVIN. I'm inclined to believe that we ought to set out some threshold levels that all children should meet. Now threshold levels are different than a very, very high standard of performance, and the reason that I'm more concerned about the high standard of performance is I think we can say more about what is required in order to get into labor markets and in order to become a participative citizen. I think we have a lot less to say about some very high standard that everyone can meet simply because the tests themselves that we presently have deal with relatively lower level kinds of skills. I don't think the testing technology is there to go much beyond threshold levels.

Representative HAMILTON. How do you react to the Charlottesville conference and the pronouncements that came out of that where the President and the Governors sit down and they decide that the Federal role is preschool basically and that we need more flexible Federal rules, whatever that means, we need decentralized school management, whatever that means, we need more accountability, whatever that means. I mean they kind of set these things out and new routes to teaching.

How do you react to the Governors getting together with the President and setting out these proposals or whatever you want to call them? Is that a good thing to do?

Ms. McDONNELL. Oh, yes, I think it is just because that is now on the table, and I suppose going back to my theme of accountability, as citizens we now have some standards to which we can hold elected officials that are now quite explicit compared to what they have been in the past.

Representative HAMILTON. Well, we set a goal there saying that all high schools will have a graduation rate of 90 percent by the year 2000. Is that a good thing to do?

Ms. McDONNELL. Yes, I think it's a good thing. However, I think some of those goals are very unrealistic. For example, the math and science one I think is quite unrealistic, and I don't know what not meeting it will do to public expectations.

Representative HAMILTON. Is this one, the one I cited, unrealistic?

Ms. McDONNELL. No, I don't think it is.

Representative HAMILTON. It's not very good to set unrealistic goals, is it?

Ms. McDONNELL. No, sir.

Representative HAMILTON. So some of the goals, if they are not achievable, you think ought not to be set forth?

Ms. McDONNELL. Yes.

Mr. CHUBB. There is a value though I think in these kinds of activities at the Federal level, even if they lead to goals that are unrealistic. These activities help to keep a focus at the State and local levels on the extent of concern and the seriousness of concern with the problem—the urgency of the need to do something about it. It keeps a fire lit under reform processes.

The other thing that I thought was useful about the summit is that it made it crystal clear to anyone who was watching, and I don't know how many people were watching, but it did make it crystal clear that the responsibility for transforming the schools is going to be primarily with the States.

That may not be the message that is the wisest one to spread in Washington, but nevertheless, the States make most of the educational rules. They structure the system and they basically determine what kind of education you get. Everyone else is essentially a junior partner from a legal standpoint. I thought that the summit made it clear that if the schools are going to be transformed, the States really have to take it seriously.

Representative HAMILTON. But your proposal really pushes it down even further, doesn't it?

Mr. CHUBB. Well, it does, and it pushes ultimate for decisions down to the school level, but in terms of who can create a system of choice that is equitable, and who has the political flexibility to move, I think it's more likely to be the States.

I want to mention one point about equity that you haven't raised. One of the main reasons we believe the States ought to be taking the lead in erecting systems of choice is that in areas where the States are carved up into lots of districts with enormous differences in local support, if people are going to have the ability to choose schools without economics being a barrier, which is currently the main barrier to kids getting into better schools, the State has to play a major role in equalizing finances. We stress that very clearly in our book, and I think that has to be done, and that only happens if the State gets involved.

Representative HAMILTON. So you would favor State tax systems which tax the richer school districts and the redistribution of State funds basically?

Mr. CHUBB. Yes, and we believe that the State ought to establish a high foundation for educational support for every child and it should hold the districts with greater tax capacity responsible for providing a large share of that and districts with low tax capacity responsibility for providing a small share.

Representative HAMILTON. Do you agree with that, Mr. Levin?

Mr. LEVIN. Yes, in general I do.

Representative HAMILTON. Do you also agree with it, Ms. McDonnell?

Ms. McDONNELL. Yes.

Representative HAMILTON. Excuse me, go ahead. I didn't mean to interrupt you, Mr. Levin.

Mr. LEVIN. I was still on your last question because I guess being 3,000 miles away it seemed like a nonevent, the summit, and that there was a lot less than met the eye. It was symbols I think without substance, no funding, no mechanisms, but having appeared to have done something simply by meeting, and I find it extremely disappointing, although I must say that my expectations weren't terribly high.

Representative HAMILTON. We have had some debate about the measurement, this measurement of dollars spent per pupil or the percentage of GNP devoted to education. Do you have any advice for us as to which of those or maybe some other measurements are a good measurement of relative effort in education? What is the best measurement or is there one?

Mr. CHUBB. I don't think any of them are particularly good measures. What counts is what you're getting for your dollars.

Representative HAMILTON. Would it be true generally that the dollars spent per pupil in a given school district would give you a pretty good idea of the value of the education and the quality of the education?

Mr. CHUBB. To the contrary, that is one of the frustrating things about school reform. Spending tends to be very unrelated to quality.

Representative HAMILTON. It doesn't tell you that.

Mr. CHUBB. Not only in a domestic context, but also in the international context.

Representative HAMILTON. Is that your impression, too, Ms. McDonnell?

Ms. McDONNELL. Yes, and I would say if I were looking for measures of educational quality or the education that different kinds of students get, I would look not so much at the money that is being spent on them, but things like the kind of curriculum and what kind of courses are offered them and what kind of courses they take, what is in those courses, and the qualifications of the teachers teaching them. So I would really look at what they are getting rather than just the money that is being spent.

Mr. CHUBB. Just to toss in one point about the spending controversy, the fact that spending is unrelated in either domestic or international contexts to quality should not be construed as an argument not to spend more money on education.

If you have a system where you're getting good results, then you ought to be willing to invest in that. If we have a well-functioning education system, we ought to be willing to put the money in. But

just putting the money into the current system without looking at the returns obviously is not money well spent.

Representative HAMILTON. Do you think we have a pretty good idea of what works in schools, our knowledge of what works and what doesn't work, you're all experts on educational policy and all, or do we have major gaps in our knowledge of what makes a good school and what doesn't make a good school?

Mr. CHUBB. I would just stress that I think we know a lot about the general characteristics of good schools, but when it comes to the particulars, that is what kind of curriculum, what kind of instructional method, what kind of classroom organization and what use of technology, there are lots and lots of good ideas, and it's very likely that there is not any single idea in any of those categories that is going to work best for all kids. It seems to me what you want is to create the kinds of schools that generally speaking look like what we agree are effective schools and then allow them to make decisions among these various alternatives.

We are never going to come to a consensus that all schools ought to look like x and then go ahead and create them. That's not likely because kids are different, and teachers are different, and different things work for different kids.

Ms. McDONNELL. I would generally agree with that statement, though I think that I would say a couple of things. I agree with Mr. Chubb in saying that there are going to be different things that work and particularly in instructional strategies for different kinds of children and different kinds of teachers. But in going back to what I said before, I think we do have a problem in the sense that there are things that work out there, but they work under very unique circumstances, and we haven't figured out how to get those into widespread practice. I think that is a big issue.

Then I think the other area where we have a gap in knowledge about what works is the whole area of curriculum. I think we've paid a lot of attention to the qualities that make good teachers and how schools can be organized. I think we know less about what makes a good curriculum and how you get from what is theoretically a good curriculum conveying it to different kinds of students. So that would be one area.

Representative HAMILTON. How are we doing on our supply of teachers, elementary and secondary?

Ms. McDONNELL. There has been some dispute lately, but we still have a problem and we are going to continue to have shortages.

Representative HAMILTON. A shortage of both elementary and secondary teachers?

Ms. McDONNELL. Yes.

Representative HAMILTON. And certain disciplines will be especially short?

Ms. McDONNELL. Yes. From what I understand in talking to other people who specialize in this, there is still going to be a problem in math and science and in some areas like special education. The extent of the shortages vary across different regions.

Representative HAMILTON. Mr. Levin, you didn't comment on these gaps in our knowledge of how school works. Do you have any comment about that?

Mr. LEVIN. Well, I think that the knowledge base, what makes a good school at the elementary level is pretty clear, and the big problem is implementation, and I think all three of us have really talked about that, whether we talk about market, whether we talk about the politics, whether we talk about the organizational aspects of implementation. That's why we have put a great deal of focus on how you take the received knowledge base, which we've shown is effective, and you try to get that into schools in a successful way.

Representative HAMILTON. I would like you to focus just a minute on the Federal role in elementary and secondary education and tell me how you look at the Federal role today and whether you think all these education statutes we have on the books help or hurt and how you evaluate them and how you would change the Federal role. I know you addressed this to some degree in your statements, or at least a couple of you did, but I would like you to focus on it just a minute for me.

What is the Federal role today and what should the Federal role be, in your view? Give me a critique, if you would, of the specific pieces of legislation if any of them stand out to you.

Ms. McDONNELL. I guess I would say that the Federal role today is more of a junior partner than probably it has been since the 1960's. I think that its role should definitely be, as I think we have all agreed, concerned about equity and concerned about special needs students who are inadequately served by the general education program funded by States and local districts.

I think also the area of statistics and research are very important and becoming more important as part of the Federal role.

What I addressed before and what concerns me is that given budget constraints and given this diminished Federal role, the Federal Government seems to want to respond, and often it looks like it responds with things that, excuse me, are sexy, but cheap, and I think that this is causing—

Representative HAMILTON. For example.

Ms. McDONNELL. Well, all the various Federal math and science initiatives, merit schools, star schools, drug-free schools, and so on. These are small categorical projects, and I'm not talking about chapter 1 or bilingual or the traditional Federal programs, but these smaller things that are in response to whatever the issues of the day are. I think it causes a fragmentation, although often at the delivery level people are able to bring these programs together.

Representative HAMILTON. Is it a mistake for the Federal Government to say, look, we have a crisis in math and science teachers and therefore we're going to put more resources into the training and preparation of math and science teachers?

Ms. McDONNELL. No, I don't think that's a mistake, and I think these various programs are worthy in and of themselves, but because funds are spread thinly you're not getting the bang for the buck you might get if they were more consolidated.

Mr. CHUBB. I think most programs are meritorious on their own and are difficult to argue against, and therefore get legislated. But I think they tend to distract attention from the more basic problem. If you nibble around the edges of bad schools trying to provide them with a little more of this, a little more of that—for example,

pull a kid out of class for a couple of hours and give him some remedial instruction—the bottom line is that the children are still stuck in rotten schools. The programs are just tinkering.

If the Federal Government could think in a more serious and comprehensive way about how to transform schools and how to get more kids into schools that are excellent, rather than thinking in terms of how to help these kids who are stuck in rotten schools, we might make progress. Unfortunately, that never seems to be the focus. The focus is always much more narrow.

Ms. McDONNELL. I completely agree with that, and I think that leads to what Mr. Levin was talking about, that we get these sort of geological layers within schools of different kinds of categorical programs and so on and we miss the big picture, and I think that's very important.

And I think your example about math and science teachers is a good one in the sense that there is a problem there and it has to be dealt with, but there are tradeoffs. In giving so much attention to math and science, other aspects of the curriculum, other kinds of teachers have been ignored, and I think we are going to pay for that down the road.

As I said in my testimony, we need good workers, but we also need strong citizens, and I think we've seen some tradeoffs there. So I would say that the Federal role should continue to be basically what it has been, but I think Congress needs to take a much holistic view of what the Federal role should be given that we are looking at big questions of changing the very nature of schools. By its categorical program approach, the Federal Government should not contribute to a fragmentation of that effort.

Representative HAMILTON. The question is the Federal role.

Mr. LEVIN. Right. Again, I just want to repeat. This is something that they have said, but I would like to see more emphasis on enabling schools to provide consolidated and schoolwide services and a transformation of schools to be more effective. There are all kinds of restrictions attached to most of the titles, and they make it very difficult to do that. At the very least one has to work to a lot of different bureaucracies to try to put these together.

Just one case that I struggled with. We tried to help a school put together an afterschool program because most of these kids were latchkey kids and they didn't have any place that was safe, secure, and so on to go to. We have a very exciting afterschool program going at very low cost and getting contributions from industry and getting other agencies such as the park and recreation group to come in and to work with us.

Off to the side we had a migrant education program, and those kids could not participate in this because they had their program, nor could their resources be used to help put this program together, and we had a tremendous shortage of funds. So if they could have provided, for example, a paraprofessional from their program, we could have brought all those kids in and they would have been working with other kids in a very, very rich program. Instead, they were off by themselves doing drill and practice and both programs suffered essentially.

The other thing that I want to add is anything generally that you can do to address the needs of families. The families that we

are working with are under tremendous stress, and I would say it extends beyond the so-called at-risk families now to simply middle-class families and lower-middle-class families where both husband and wife are working or where there is only a single parent. That really affects what the schools have to do.

In America I would argue that there is less and less education taking place in the home over time and a much higher set of expectations about education in the schools, and it seems to me that unless we respond by making it possible for homes to provide more educational services to their children by reducing at least some of the stress, then we're just going to face this problem, and remediating all of that as the present approach suggests in schools simply can't happen.

Anything that we can do to make stronger families, and I'm talking about even very different families than we've talked about in the past, and to help families become better educators for their kids I think would be all to the good.

Mr. CHUBB. If I could just make two brief points on this.

One is one that I think we would all agree on in general and maybe it doesn't need reiteration, but that's the equity role, and I think that it has been the traditional role for the Federal Government and it should be done in a substantial financial way. In those States where efforts are being made to create choice programs to allow children to move around, the Federal Government equity role shouldn't stand in the way of mobility by poor students.

If a student and his family decides that they can get a better education in school A rather than in school B, the Federal Government should not be standing in the way of that family and saying sorry, if you move to that other school you're not entitled to the same kinds of services or support that you had been getting from the Federal Government.

I know that in States where they are debating choice programs, they are very concerned that the Federal Government not stand in the way of them being able to continue to provide the same services in different schools for kids who are poor or eligible for other Federal programs.

Representative HAMILTON. Under your proposals you would continue that Federal role?

Mr. CHUBB. Absolutely, but we want the Federal money to be able to be used in the school that the child chooses even if that school might not now be a school eligible for those Federal dollars.

The second point that I would like to stress, and this is a more general point, and it has to do with how we got an educational system that has become so top heavy over time with bureaucracy and so concerned with following rules and mandates and so forth.

The Federal Government, with all of the best intentions, has played a large role in creating a public school system which is very top heavy, which is very bureaucratic, and where the schools do not look within themselves to improve but constantly look to the outside to be told what they need to do with this program and that program and so forth. The Federal Government has helped create a school system where the people who work in it come to see the better jobs in the system, the positions with greater responsibility, in the various posts outside of the school.

We found, and this is one of the interesting little findings in our study, that the worst principals in the country were the ones who said they aspire to move up to a higher administrative post. Where did all these higher administrative posts come from, and where did we get all of this bureaucracy which the people in schools want to move into? Well, the Federal Government and the State governments then mimicking the Federal Government have helped to create this bureaucracy, always for the best of reasons. But after 30 years of creating it no one really likes what we have.

Representative HAMILTON. I visit a lot of high schools in my area, and I always ask the principal what makes for good education, and the principals will almost unanimously respond, and I don't ever recall a different response as a matter of fact, a good teacher makes good education.

One of the things I've noticed is that even in the same school you will have enormous differences in the quality of education. I deal, of course, a lot with social studies and political science and history kind of courses and economics, and I'm not in a school 15 minutes before I can tell you who are the good teachers of those subjects and who are not, and I find immediately very great differences in the same school on the quality of education for a particular subject.

Now, I don't know whether that has any bearing on you. That's kind of an outsider, layman's observation, but I'm impressed not only with the difference in the quality of schools, school A and school B, but I'm impressed with the difference of the quality of education within a school where you have a very good science teacher here and a very lousy one over here teaching this group of students, or a very good political science teacher and a very bad one.

I'm inclined to think that my observation kind of confirms that I've heard my principals say down there. Do you have any reaction to that at all?

Mr. CHUBB. It's absolutely true. There is an enormous variation in the quality of teachers within schools, and one of the reasons that happens is that it's very, very difficult to judge the quality of a teacher when you hire him or her. It's difficult to tell from their transcripts, and their course work, and everything else whether they are going to be a good teacher. The only way to tell whether they are going to be good teachers is to watch them teach and see how they do. At that point, once that has been done, then any teacher, and any parent, and any principal can tell you who the good ones or the bad ones are.

The problem from a policy standpoint is that knowledge is rarely acted on. The good teachers are really not rewarded and the bad ones, with rare exceptions, aren't counseled out of the schools. So because it's difficult to make these recruitment decisions, and once recruited there are no consequences for good or bad teaching, you're left with this sort of random distribution of teachers within schools.

Mr. LEVIN. Well, you know, there is another way around that, though, and that is that as long as people can go through just their own professional duties and survive, that's the goal of the school. That is, there is no unity of purpose, but each individual simply

gets through the curriculum and so on. You don't really have a school with a focus, with what we call unity of purpose.

In our schools we have started off with the very same teaching forces that are there, but over time something quite interesting happens. The teachers and other staff are now working to try to make important gains for the students and for the school, and people who are doing a poor job or who aren't contributing to them initially get some pure coaching and get some assistance, but over time if it's a matter of a lack of willingness or a lack of ability, there is pressure on them. We have had teachers leave these schools and at the same time we've had other teachers queuing up to get into these schools because they find them such an exciting place for professional practice. So I think in the long term if you have this kind of unity of purpose and these goals where the school itself sees that success in these goals means working together, sharing, helping each other and so on and that those who are not part of that simply feel uncomfortable, you solve that problem, and at the same time others who are attracted come in and help to support what you're trying to do.

Representative HAMILTON. Is teacher burnout a problem? I talk to a lot of teachers and I'm impressed with the numbers who are in their 30's and have been in the system 5, 10, or 15 years who just say they are overloaded and they can't take it much more, elementary school teachers, and a lot of them women, but not necessarily only women, just burnout. Is that a problem in the school systems generally or is that just common to my area?

Ms. McDONNELL. No, I think it's a major problem, and I think it's there for a number of reasons. First of all, we're talking about a teacher force which is now largely middle aged, and particularly in urban areas they are teaching very different kinds of students than they were trained to teach.

I think this also goes to what Mr. Levin is talking about. Many schools and many school systems have not provided teachers with the resources for ongoing professional development, for talking to colleagues about how to deal with these problems. Most teachers are very isolated. They are teaching the way they were taught to teach some 20 years ago. Many of them would like to change and they haven't been given the professional opportunities to do that. Now, I think that burnout is a real problem, but I think there are things that could be done about it.

Representative HAMILTON. What? I don't want the hearing to hang on that one. [Laughter.]

Ms. McDONNELL. Sorry. I am thinking of the kind of initiatives that Mr. Levin is talking about. If faculties come together in a collegial way to decide what they are about and then have opportunities to work with each other, I think a lot of the problems can be addressed within individual schools.

Representative HAMILTON. Any other comments to conclude?

Mr. LEVIN. Yes. I just wanted to mention one on the teachers. When we started this, and I do not come from a background in pedagogy. All my training is in economics. I have a Ph.D. in economics. I'm in the Economics Department at Stanford and teach courses there as well as in the School of Education. I started off with a national media bias that the big problem is there are a lot

of lousy teachers out there and unless you just clean that out you're going to have problems.

What I discovered was that there is far, far more talent in the urban schools than we have any right to expect given the way we pay these teachers and given the way that they have been put down, and that we are so underutilizing the present talent that that has to be an important goal, an important goal to get them to work together.

The other thing that I found is the vast majority of teachers want to do a good job and want to succeed, and if you can make them part of a school that is successful, a lot of the danger of burn-out disappears because it's paying off, the hard work, the effort, working together and coming up with new ideas. Ideas count in this kind of environment, and it seems to me it is very important to keep that in mind as opposed to what I consider to be an unsupported view that the problem just is a bunch of lousy teachers out there.

Mr. CHUBB. Yes, I would just second that in conclusion. The kind of teaching that we get is as much a function of the kind of teachers that are there as the kind of working conditions that we put them in. If we could change those working conditions, so that teachers were treated with respect, treated as professionals, given more responsibility and trusted more to make decisions, to participate and so forth; if you created that kind of professional work environment instead of a work environment that is increasingly bureaucratized and civil service like, teachers would be much more enthusiastic about their jobs and work together better.

But as long as we keep this sort of deadening school environment where teachers are treated like common civil servants, you're going to have these problems.

Representative HAMILTON. Well, thank you very much. We've had an excellent discussion this morning. I appreciate your contributions, and we stand adjourned.

[Whereupon, at 11:45 a.m., the committee adjourned, subject to the call of the Chair.]

